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UTILITY PATENT APPLICATION TRANSMITTAL

Attorney Docket No. KIHNJ40295

First Inventor or Application Identifier Kihn

Title Momentum Investment Systems...

(Only for new nonprovisional applications under 37 C.F.R. § 1.53(b)) Express Mail Label No. EL622422302US Assistant Commissioner for Patents APPLICATION ELEMENTS ADDRESS TO: **Box Patent Application** See MPEP chapter 600 concerning utility patent application contents. Washington, DC 20231 * Fee Transmittal Form (e.g., PTO/SB/17) Microfiche Computer Program (Appendix) (Submit an original and a duplicate for fee processing) 6. Nucleotide and/or Amino Acid Sequence Submission X 2. Specification Total Pages 38 (if applicable, all necessary) (preferred arrangement set forth below) Computer Readable Copy - Descriptive title of the Invention - Cross References to Related Applications b. Paper Copy (identical to computer copy) - Statement Regarding Fed sponsored R & D Statement verifying identity of above copies C. - Reference to Microfiche Appendix - Background of the Invention **ACCOMPANYING APPLICATION PARTS** - Brief Summary of the Invention Assignment Papers (cover sheet & document(s)) - Brief Description of the Drawings (if filed) 37 C.F.R.§3.73(b) Statement Power of - Detailed Description 8 (when there is an assignee) Attorney English Translation Document (if applicable) - Abstract of the Disclosure Information Disclosure Copies of IDS 10 3. X Drawing(s) (35 U.S.C. 113) Total Sheets 40 Statement (IDS)/PTO-1449 Citations **Preliminary Amendment** Oath or Declaration [Total Pages Return Receipt Postcard (MPEP 503) X Newly executed (original or copy) 12. l (Should be specifically itemized) Copy from a prior application (37 C.F.R. § 1.63(d)) * Small Entity Statement filed in prior application, (for continuation/divisional with Box 16 completed) 13. X Statement(s) Status still proper and desired **DELETION OF INVENTOR(S)** (PTO/SB/09-12) Certified Copy of Priority Document(s) Signed statement attached deleting 14 inventor(s) named in the prior application, (if foreign priority is claimed) see 37 C.F.R. §§ 1.63(d)(2) and 1.33(b). ١5. NOTE FOR ITEMS 1 & 13: IN ORDER TO BE ENTITLED TO PAY SMALL ENTIT FEES, A SMALL ENTITY STATEMENT IS RÉQUIRED (37 C.F.R. § 1.27), EXCEPT IF ONE FILED IN A PRIOR APPLICATION IS RELIED UPON (37 C.F.R. § 1.28). 16. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment: Continuation Divisional Continuation-in-part (CIP) of prior application No: Prior application information: Examiner Group / Art Unit: For CONTINUATION or DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 4b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts. 17. CORRESPONDENCE ADDRESS Customer Number or Bar Code Label Correspondence address below de label here) (Insert Cust 021587 Name Address City State Zip Code Country Telephone Name (Print/Type) Gera1 d Altman Registration No. (Attomey/Agent) 17,109 Sianature 08/25/2000 Date

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STATEMENT CLAIMING SMALL ENTITY STATUS (37 CFR 1.9(f) & 1.27(b))--INDEPENDENT INVENTOR Docket Number (Optional) KTHN: 14.0295

		
Applicant, Patentee, or Identifier.	John Kihn	
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TITLE: Momentum Investment System, Process and Product

BACKGROUND OF THE INVENTION

Field of the Invention

The present invention relates to the assessment and management of financial assets and, more particularly, to systems, processes and products involving investment vehicles, particularly, mutual funds and the like.

Related Applications

The present application is a continuation-in-part of earlier applications: Serial No. 09/426,956, filed on October 26, 1999, for Universal Asset Class Benchmark System & Process; and Serial No. 09/495,717, filed on February 1, 2000, for Real Time Benchmarking Of Investment and Financial Assets. The sole inventor in both of these applications is John Kihn, the sole inventor in the present application.

The Prior Art

As of the year 2000, the mutual fund industry is one of the fastest growing financial industries in the United States. Investment in mutual funds often is preferred over investment in individual stocks and bonds because of four critically desirable characteristics: (1) broad diversification; (2) professional management; (3) liquidity; and (4) convenience.

A mutual fund is a financial intermediary, which sells shares to the public and invests the proceeds in financial assets including (1) stocks, (2) bonds and (3) cash financial securities. Obviously, a fund's profit and loss statement reflects interest, dividends and capital gains on one hand, and costs, expenses and capital losses on the

other hand. Ordinarily, highly skilled and highly paid management and research services are among a mutual fund's largest expenses.

Obtaining higher rates of return is a preeminent objective of mutual fund management and research. According to "portfolio theory", as developed by economists, every investment may be characterized by two measures — expected return and risk. R. Brealy, An introduction to Risk and Return for Common Stocks (1969). It is axiomatic that risk and expected return are correlated: the higher the risk, the greater the expected return; the lower the risk, the smaller the expected return. J. Lorie and M. Hamilton, The Stock Market: Theories and Evidence (1973).

Efforts to obtain higher rates of return have focused on technical analysis and fundamental analysis. Technical analysis theorizes that buying and selling patterns in financial markets are random occurrences that largely depend on investor psychology, without any predictable connection between future and past stock market data. Fama, Efficient Capital Markets: A Review of Theory and Empirical Work, 25 J. Finance 383 (1970). Fundamental analysis theorizes that stock prices are correlated with corporate earnings, and predictability depends on the availability of information or interpretations of information about relevant data. Cohen, Zinbarg & Zeikel, Investment Analysis and Portfolio Management, 739 (1973). Technical analysts "study past prices" and "buy stock", whereas fundamental analysts "study reports" and "buy companies". Sunny J. Harris, Trading 102: Getting Down To Business (1998). Neither technical analysis nor fundamental analysis, however, has provided a favorable edge in the assessment of future value of financial assets.

Much of both technical analysis and fundamental analysis relies heavily upon the mathematical procedure known as "indexing". Simply stated, indexing merely means collecting and analyzing financial information about a group of financial assets and deriving there from quantitative measures that are thought to be useful in assessing value. Widely known and used daily indices include (1) the Dow Jones Industrial Average, which is calculated from about 30 "Blue Chip" stocks, (2) the Standard & Poors 500 Index, which is calculated from 500 stocks, (3) the AMEX Market Value Index, which tracks the average of stocks traded on the American Stock Exchange, and (4) the NASDAQ Composite Index, which tracks all of the stocks traded on the National Association Of Security Dealers exchange. The problem is that most indices are based upon historical assumptions and/or rules that cannot be guaranteed to apply realistically at any particular time.

As will be described in more detail below, the present invention relies upon measures that are more properly considered to be benchmarks than indices. The terms index and benchmark often are used somewhat interchangeably. However, strictly speaking a benchmark is commonly more of a reference within a localized process, while an index is more commonly viewed as a generally applicable statistical term. Webster's defines benchmark as "a standard or reference by which others can be measured or judged", and index as "a number derived from a series of observations and used as an indicator or measure". Statistics textbooks more specifically define an "index number" as "a single figure that shows how a whole set of related variables has changed over time or differs from place to place". The present description uses benchmark in its more

restricted sense to refer to a measure in the relatively restricted context of the present invention.

Portfolio/Fund Level Data

A critical element in the program of the present invention is publicly available portfolio data. There are at least two portfolio level fields of data (portfolio content and portfolio date) and two security level fields of data (CUSIPs or some other unique identifier and the number of shares for equities or par amounts for bonds). A CUSIP is a unique identifier. This data is generated from one or more of the following sources: Securities and Exchange Commission ("SEC") filings (these are referred to as "EDGAR filings") or the equivalent filings in other countries (i.e., in the case of those funds not registered in the United States). In the United States, all publicly traded funds are required to file at least semi-annual statements (i.e., one annual and one mid-year statement). Publicly traded funds issue annual, semi-annual and/or quarterly statements that provide a dated detailed list of securities comprising each portfolio/fund. Many mutual funds complexes, insurance companies, banks, etc. give detailed lists of the contents of their portfolios to various data providers. There are several data providers that compile security level data listings from both publicly and privately held portfolios/funds. Essentially these data providers use various combinations of the above sources to compile these listings.

Asset Class Data

Depending on the benchmark being constructed, certain fields are matched with portfolio data. For example, certain equity portfolio data will require a description of the security, sector code (possibly based on the Standard Industrial Classification (SIC) code), etc. A high yield corporate bond portfolio might additionally require coupon, maturity, call schedule, etc. This general set of data is designed to completely encompass the portfolio data and is referred to as the Asset Class Data. Depending on the asset class(es) the securities are drawn from, there are typically several firms that provide this

type of data to those firms that manage the portfolios being benchmarked. Several brokerage firms (e.g., Merrill Lynch and Salomon/Smith Barney) as well as several firms unrelated to the brokerage and financial management industry provide this information (e.g., J.J. Kenny, which is owned by Standard and Poors, or EJV/Bridge).

Portfolio Tracking Data

Related to the Portfolio Data is the Portfolio Tracking Data. These values are used to aid in tracking those portfolios that are used to construct the benchmarks and used to determine expenses charged to shareholders. This data is currently available from the following two primary sources: (1) Lipper provides portfolio level data (e.g., Net Asset Values ("NAVs"), returns, distribution yields, management fees, total expenses, defined asset groupings, etc.) for all publicly traded open-end funds, closed-end funds, annuity/insurance products, etc. Of particular importance are the NAVs and financial performance data. (2) Morningstar provides portfolio level data (e.g., Morningstar 3 year, 5 year, and 10 year ratings, management fees, total expenses, as well as defined asset groupings), which in many cases closely mimic those of Lipper.

Mutual Fund Performance

Studies of current mutual fund performance suggest the following: (1) Investors chase returns, namely, the summation of dividend distributions and capital appreciation.

(2) Some fund returns can be slightly predictable. That is, past winners tend to continue to win and past losers tend to continue to lose. (3) The persistence in these funds is due almost exclusively to momentum stocks. In other words any persistent fund performance is due to holding stocks, not trading them in and out, as one would expect an "active" manager to do. Therefore, the appearance of superior "active" management is due to a

basic buy and hold strategy not active trading. (4) There appears to be less persistent skill in the mutual fund industry than one would expect. In short, the mutual fund industry's record often is not impressive. (5) Therefore, the costly professionals hired by mutual fund firms often are not warranted. See: "Cochrane, John H., New Facts in Finance", NBER Working Paper No. 7169, June 1999. P. 1-42.

SUMMARY OF THE INVENTION

A primary object of the present invention is to provide mutual fund systems, processes and products that are characterized essentially by a program which can be represented by pseudo-code defining the following steps: (a) selecting, from the universe of asset classes, a restricted number of asset classes that have demonstrated superior returns by maintaining momentum during an existing first period of time of relatively long duration; (b) selecting, from these asset classes, portfolios of assets that have demonstrated superior returns by maintaining momentum during an existing second period of time of relatively short duration; (c) establishing and optimizing a benchmark based upon these portfolios of assets to identify a moving portfolio having calculated momentum, and (d) tracking and periodically updating investment decisions to monitor and maintain the calculated momentum of the moving portfolio. Preferably, the first designated period of time is relatively extended, e.g. no less than two years, and the second designated period of time is relatively restricted, e.g., no more than two years. It is to be understood that each of the two periods of time extend backwardly from the same point of reference, one partially overlapping the other.

In the "normal" passive indexing approach, the benchmark/index is taken as a given (i.e., the benchmark is typically exogenous to the system). In some cases, a

manager determines the benchmark/index. In the present case, indexing is not merely an outcome of endogenous forces. Rather, it is determined by exogenous forces (e.g., different portfolio managers, rating services, data availability, etc.) as well. The program herein takes one or more real snapshots of one or more real portfolios, and then establishes a benchmark accordingly.

BRIEF DESCRIPTION OF THE DRAWINGS

For a fuller understanding of the nature and objects of the present invention, reference is made to the following detailed specification, which is to be taken with the accompanying drawings, wherein:

Fig. 1 is a flow diagram that generally illustrates the systems, processes and products of the present invention;

Figs. 2.1 to 2.2 are a composite listing of equity funds, ranked by estimated net inflows over a one year period, which constitute selections from an asset class that is identified in accordance with the illustrated example of the present invention;

Figs. 3.1 to 3.5 are a composite listing of fixed income funds ranked by estimated net inflows over a one year period, which constitute another asset class from which selections alternatively could be made in accordance with an alternative example of the present invention;

Figs. 4.1 to 4.2 illustrate a listing of the equity funds of Figs. 2.1 to 2.2, ranked by estimated net inflows over a one-year period (calendar year 1999);

Figs. 5.1 to 5.6 illustrate a Microsoft Excel spreadsheet for processing data in accordance with a step of the present invention;

Figs. 6.1 to 6.6 illustrate another Microsoft Excel spreadsheet for processing data in accordance with a next step of the present invention;

Figs. 7.1 to 7.8 illustrate a further Microsoft Excel spreadsheet for processing data in accordance with a next step of the present invention;

Figs. 8.1 to 8.7 illustrate still another Microsoft Excel spreadsheet for processing data in accordance with a next step of the present invention; and

Figs. 9.1 to 9.5 illustrate another Microsoft Excel spreadsheet for processing data in accordance with a next step of the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT General Description – Fig. 1

A flow diagram illustrating the system, process and product of the present invention is shown in Fig. 1 as including the following steps:

Step 1 - as shown in blocks 20, 22, selecting, from the universe of asset classes, a restricted number of asset classes that have demonstrated superior returns by maintaining momentum during what may be defined as an existing first period of time of relatively long duration. (This first period extends backwardly from a specified reference point in time.) This selection identifies asset classes that are expected to outperform.

Step 2 - as shown in blocks 23, 24, selecting, from the aforementioned restricted number of asset classes, portfolios of assets that have demonstrated superior returns by maintaining momentum during what may be defined as an existing second period of time of relatively short duration. (This second period extends backwardly from the specified reference point of time and partially overlaps the first period.)

Step 3 - as shown in blocks 25, 26, establishing and optimizing (weighting and filtering) a benchmark based upon portfolios of assets 23, 24 to identify a moving portfolio having calculated momentum.

Step 4 - as shown in blocks 28, 30, tracking and periodically updating investment decisions to monitor and maintain the calculated momentum of the moving portfolio.

Pursuant to Steps 1 through 4, above, issuing securities, purchasing portfolio assets and selling securities as shown in blocks 32, 34, 36.

In support of the calculations herein, the following is to be noted: (1) portfolio data (i.e., CUSIPs or some other unique identifier and share amounts) must be available for each portfolio meeting the criteria of Steps 1 through 4; and (2) any fund/portfolio should have some unique identifier (e.g., a five character Nasdaq® symbol — National Association of Securities Dealers Automated Quotation System). The aforementioned unique identifiers are needed for confirming the identity of the fund/portfolios in order to process the various sets of data in a computer.

There now follow detailed descriptions of the steps of the present invention.

Step 1 - Identify asset classes that are expected to outperform Fig. 1-blocks 20,22; Figs. 2.1-2.2, 3.1-3.5, 4.1-4.2

Figs. 2.1 to 2.2 are an example of a composite listing of equity funds, ranked by estimated net inflow over a one year period. Essentially, the most promising asset class will be that which has had the greatest net flows over the last year or more.

Figs. 3.1 to 3.5 are another example, in the form of a composite listing of fixed income funds, which constitute other asset classes from which selections alternatively could be made in accordance with another example of the present invention.

As of January, 2000, large cap growth equity funds have had the largest Total Net Assets ("TNA"), offer the largest 10 year Estimated Net Flows ("ENF"), and offer the largest one year Estimated Net Flows. Therefore, as of January 2000, large cap growth equity funds constitute a preferred universe from which the listing illustrated herein is selected.

Figs. 4.1 to 4.2 illustrate a listing of the equity asset groupings of Figs. 2.1 to 2.2, ranked by estimated net flows over the calendar year 1999. Given that this case is for illustration purposes, it should be noted that the one year period is for illustration purposes and could conceivably be significantly extended in practice.

Step 2 - Identify the funds/portfolios that are expected to outperform Fig. 1-blocks 23,24

This step consists essentially of the following sub-steps:

Step 2.1 Perform regression analysis on all funds/portfolios in the selected asset class(es) in order to select those funds expected to outperform in the future. In this example, we take an equally weighted group of the 4 top funds/portfolios in the large-cap growth group.

Step 2.2 Update this analysis periodically, in this example once every three months, i.e., once a quarter. Drop and add funds based on this analysis. In this example, we apply an arbitrary rule based on a quarterly turnover of at most one fund/portfolio. Therefore, we drop the weakest of the four previous funds/portfolios and add the strongest fund/portfolio not included in the four

funds/portfolios comprising the benchmark. Thus, we target a 100% turnover per year. However, it is to be understood that there may be no turnover in any one or more quarters when all four top funds stay within the evaluation criteria.

Step 2.3 As funds/portfolios are dropped and others added in their place, rebalancing will occur in order to maintain tracking with respect to the benchmark.

The regression methodology used in this example is largely based on the following financial economists:

Jensen (e.g., see Jensen, M., "The Performance of Mutual Funds in the Period 1945-1964," The Journal of Finance, Vol. XXIII, No. 2, May 1968, 389-419);

Hendricks, D., Patel, J., and R. Zeckhauser, "Hot Hands in Mutual Funds: Short-Run Persistence of Relative Performance, 1974-1988," The Journal of Finance, March 1993, 93-130;

Grinblatt, M., and S. Titman, "Portfolio Performance Evaluation: Old Issues and New Insights," The Review of Financial Studies, Vol. 2, No. 3, 1989, 393-421;

Grinblatt, M., and S. Titman, "Mutual Fund Performance: An Analysis of Quarterly Portfolio Holdings," Journal of Business, Vol. 62, No. 3, 1989, 393-416;

Grinblatt, M., and S. Titman, "The Persistence of Mutual Fund Performance," The Journal of Finance, Vol. XLVII, No. 5, December 1992, 1977-1984;

Grinblatt, M., and S. Titman, "Performance Measurement without Benchmarks: An Examination of Mutual Fund Returns," Journal of Business, Vol. 66, No. 1, 1993, 47-68;

Grinblatt, M., Titman, S., and R. Wermers, "Momentum Investment Strategies, Portfolio Performance, and Herding: A Study of Mutual Fund Behavior," The American Economic Review, Vol. 85, No. 5, December 1995, 1088-1105, etc.

The basic regression used here (and in most of the studies searching for mutual fund return persistence) is done to calculate some version of "Jensen's alpha". In this example, the following will be the form of the calculation (i.e., this is very standard): the "Jensen Measure is the intercept in a regression of the time series of excess returns (above the one month Treasury Bill rate) of the evaluated portfolio against the time series

of excess returns of the benchmark portfolio(s). This is the traditional measure used in most previous studies of fund performance." Grinblatt, M., and S. Titman, "A Study of Monthly Mutual Fund Returns and Performance Evaluation Techniques," Journal of Financial and Quantitative Analysis, Vol. 29, No. 3: September 1994, p. 423.

This regression calculation is as follows:

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RMF_{i}^{i}-RTB_{i}=\alpha^{i}+\beta^{i}(RAC_{i}-RTB_{i})+e_{i}^{i} , where RMF_{i}^{i}=\text{return for mutual fund i at time t (i.e., month t)}, RTB_{i} = return for Treasury Bill at time t, \alpha^{i} = alpha of mutual fund i, \beta^{i} = beta (i.e., slope coefficient) for mutual fund i, RAC_{i} = return for mutual fund asset class at time t, and e_{i}^{i} = error term for mutual fund i at time t. Therefore, the estimated equation is of the form: \hat{\alpha}^{i}=(RMF^{i}-RTB)-[\hat{\beta}^{i}(RAC-RTB)] , where alpha and beta are estimates.
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Effectively, we are focusing on calculating rolling alphas for each fund in the large-cap growth asset class designation using 24 month intervals. Generally, we are dropping at least one data point and adding at least another every month (hence the reference to rolling regressions). The practical goal is to identify those individual funds

with the best recent risk-adjusted performance (i.e., over the last two years) under the assumption that some of that relative performance (i.e., relative to other funds in its asset class) will persist into the near future. The literature in this field suggests that two years is a good period of time to use (i.e., three or more may be too long), and that some version of Jensen's alpha is useful in identifying future performers (especially for certain asset classes like growth equities).

Step 3 - Establish and Optimize (Weight and Filter) Fig. 1-blocks 25, 26

This step involves consolidating the investments contained by the selection of Step 2 to provide a composite list of current investments; filtering the composite list to provide a preliminary moving portfolio of investments; and filtering the preliminary moving portfolio of investments to provide an enhanced moving portfolio of investments.

Each of the securities in the selection of current portfolios has a unique CUSIP identifier. For each of the securities, the CUSIP and the shares data are combined with pricing data. For each of the current portfolios the estimated total market value is calculated as follows:

(1) For each of the securities in the selected portfolio/funds, combine the CUSIP and shares data with pricing data in order to calculate market value weightings. In addition to price, add other fields such as CUSIP, transaction costs, liquidity, description, and industry sector. In short, combine the portfolio data with the asset class data for that specific benchmark. Also, for each portfolio/fund, consolidate any securities with duplicate identifiers (i.e. CUSIPS) by summing up the market value for that identifier.

(2) For each portfolio/fund in the benchmark, calculate the estimated total market value for that portfolio as follows:

$$PMV = \sum_{i=1}^{N} Shares_i * Price_i$$

- , where N = the number of securities in that portfolio/fund, and PMV = the portfolio/fund market value;
 - (3) Sum up all the PMVs (i.e.,

$$TBMV = \sum_{j=1}^{J} PMV^{j}$$

- , where J = the number of portfolios/funds in the benchmark (in this case 4), and TBMV = total benchmark market value);
- (4) Create a scaling factor in order to equally weight the portfolios by taking the reciprocal of the weight of each portfolio as follows:

$$SF^{-j} = 1 / (PMV^{-j} / TBMV^{-})$$
 where

 SF^{j}

- = the scaling factor for the jth portfolio/fund.
 - (5) adjust the scaling factor so that the sum of the scaling factors equal unity,

$$ASF^{j} = SF^{j} / \sum_{j=1}^{J} SF^{j}$$

, where

= the adjusted scaling factor for the jth portfolio/fund, and ASF^{j}

. (6) Adjust the securities in the benchmark so that each portfolio/fund receives an equal weight (as opposed to each security) by multiplying each security in each portfolio/fund by its appropriate adjusted scaling factor,

$$AMV_i^j = MV_i^j * ASF^j$$

, where

 AMV_i^j

- = the adjusted market value of security i in portfolio/fund j; and
- (7) Based on step 6, create an adjusted weight for each security in each portfolio/fund in the benchmark,

$$x_i^j = AMV_i^j / (\sum_{i=1}^{J} \sum_{i=1}^{N} AMV_i^j * J)$$

, where

 \mathbf{x}^{j}

= the weight of the ith security in the jth portfolio/fund, and

$$\sum_{i=1}^{j} \sum_{i=1}^{N} x_i^j = 1/J$$

(by construction).

The final filters include the following: (a) each security must be listed on a major domestic or overseas stock quotation system; (b) each security must have been traded for at least 1 year; (c) each security must have an annualized share turnover rate exceeding 20% of the common shares outstanding; (d) over 50% of the total common shares of a company's stock must not be owned by insiders; (e) transaction costs are minimized. subject to movement with the underlying theoretical benchmark.

The arrangement is such that filter (a) requires that the securities be traded on a large recognized stock exchange; filter (b) establishes some base minimum seasoning for

shares; filter (c) establishes some base level of demonstrated liquidity over the last year; filter (d) merely diminishes the odds that the shares of any company held in the portfolio are unduly influenced by insiders, and works as an extra liquidity filter; and filter (e) is an explicit attempt to enhance the returns of the portfolio by minimizing transaction costs subject to the constraint of requiring that the resulting portfolio reflect the original portfolio's financial characteristics.

The following is the formulation for the optimization used in filter (e):

$$TC = \sum_{i=1}^{N} TC_i * x_i$$

Minimize

, where TC = transaction costs (these are based on bid/ask spreads). In a typical portfolio/fund example, N = 519 (i.e., 566 minus the 47 dropped in the first 4 filters).

$$\beta^{US} \le 1.01$$

$$\beta^{US} \geq 0.99$$

Subject to, where

$$oldsymbol{eta}^{\mathit{US}}$$

= the beta of the portfolio/fund example. Also, by definition

$$\sum_{i}^{N} \beta_{i} * x_{i} = 1 = \beta$$

where N=519 and $\beta=$ the beta of the portfolio before the optimization (i.e., the sensitivity of the portfolio/fund to movements in the benchmark). Therefore, by definition, $\beta=1$.

βs are estimated for each of the securities in any selection by the following regression analysis:

$$R_{it} = \alpha_i + \beta_i * R_t^{US} + e_{it}$$

, where R = return, i denotes for security i of the number of securities in said selection, t denotes day t of one year of daily values, and α = alpha of the regression, both α and β being estimated by regressing approximately 200 daily returns for the security against the market weighted returns for the portfolio/fund of said selection of securities.

Step 4 - Tracking and Periodically Updating Fig. 1- blocks 28, 30

The moving portfolio is repetitively updated in accordance with Steps 1, 2 and 3.

EXAMPLE

A specific example, illustrating the system, process and product of the present invention, is given below in reference to the Microsoft Excel spreadsheets depicted in Figs. 5.1-5.6, 6.1-6.6, 7.1-7.8, 8.1-8.7 and 9.1-9.6. These spreadsheets perform calculations, which generate a running list of funds that are included in a benchmark for a large-cap growth equity momentum shares portfolio during a time span that includes the period from 1/31/1997 to 3/31/2000.

The Spreadsheet of Figs. 5.1 - 5.6

This is the "rawdata" spreadsheet, i.e., returns, expenses, and fund identifiers. There are no calculations and/or filtering at this stage. This spreadsheet draws data from Lipper with some fund identifier and monthly total returns for each fund in the large-cap growth equity group going back to 1/31/95 (i.e., through 3/31/2000). In addition, it

matches this file with 1 month Treasury Bill return data from the Federal Reserve Board's H.15 release. (There are many other potential sources.)

The Spreadsheet of Figs. 6.1 - 6.6

Next comes the filtering to reduce the sample to the set from which final selections are made. In addition, an average monthly return is calculated across the 122 funds that survived the filters. This spreadsheet filters the fund level data as follows: (1) cuts the period from 12/31/1989 through 3/31/2000 to 1/31/1995 through 3/31/2000; (2) eliminates all funds without full return data during the period 1/31/95 through 3/31/2000; and (3) eliminates all duplicate fund data while keeping those funds with the lowest stated total expenses.

The Spreadsheet of Figs. 7.1 - 7.8

This spreadsheet nets out the "risk-free rate" from individual and average fund returns. It calculates returns net of "risk-free rate". Of the original funds, 122 remain after applying the initial filters mentioned. Therefore, the universe of funds is this list of 122 large-cap growth equity funds. This netting of the "risk-free rate" also is applied to the average return for the 122 funds. Reference is made to the above regression equations to explain the processing of both the individual funds monthly returns and their average or median monthly returns.

The Spreadsheet of Figs. 8.1 - Fig. 8.7

This spreadsheet calculates the rolling alphas, which are the basis for fund inclusion/exclusion in the benchmark. It calculates rolling 2 year (i.e., 24 month) alphas over the period 12/31/1996 through 3/31/2000. This is done for all 122 funds. These

alphas form the basis by which funds are included and/or dropped from the benchmark every time the benchmark is updated (in this case quarterly).

The Spreadsheet of Figs. 9.1 - 9.5

This spreadsheet tracks the funds comprising the benchmark. Essentially, it summarizes the combination of the alphas derived in the previous spreadsheet and the rules of fund selection discussed in the first part of this document. Funds must be large-cap growth equity funds as defined by Lipper. The benchmark comprises four of these funds. Each calendar quarter one or none of these funds will be dropped and replaced by that fund with the best-estimated alpha (i.e., outside of the top three current funds included in the benchmark). This spreadsheet displays the rolling selected funds (in this example 4 funds are always maintained in the benchmark — equally weighted) as they would appear chronologically to implement the strategy of the present invention. For example, given the lag involved with the data, the data for 1/31/1997 is based on the known 12/31/1996 data.

Rebalancing the Benchmark

Rebalancing involves repeating the foregoing steps periodically. In this example, after the initial four funds are selected, typically only one will need to be changed each quarter. Although, as can be seen from the 2nd and 3rd to last quarterly updates in this example, there is no change required because the same four are still rated in the top four by this method.

OPERATION

The operation of the present mutual fund systems, processes and products involves: selecting a restricted number of asset classes/groups that have demonstrated

superior returns by maintaining momentum during an existing first period of time of relatively long duration; selecting portfolios of assets that have demonstrated superior returns by maintaining momentum during an existing second period of time of relatively short duration; establishing and optimizing a benchmark based upon these portfolios of assets to identify a moving portfolio having calculated momentum, and tracking and periodically updating investment decisions to monitor and maintain the calculated momentum of the moving portfolio. The practical value of the aforementioned systems, processes and products is demonstrated by the following. The aforementioned spreadsheet example added about 14% incremental risk-adjusted return per year. The geometric average annual return for this example was 47.30% per year (over the 39 month period analyzed — 1/31/1997 through 3/31/2000) versus 33.45% for the average fund (i.e., for the 122 fund universe). The aforementioned example focuses on large-cap growth equities. But this approach is applicable within and across many other asset classes/groups.

WHAT IS CLAIMED IS:

- 1. A financial system comprising:
- (a) means for selecting, from the universe of asset classes, a restricted number of asset classes that have demonstrated superior returns by maintaining momentum during an existing first period of time of relatively long duration;
- (b) means for selecting, from these asset classes, portfolios of assets that have demonstrated superior returns by maintaining momentum during an existing second period of time of relatively short duration;
- (c) means for establishing and optimizing a benchmark based upon these portfolios of assets to identify a moving portfolio having calculated momentum, and
- (d) means for tracking and periodically updating investment decisions to monitor and maintain the calculated momentum of the moving portfolio.
- 2. The financial system of claim 1 wherein said first designated period of time is at least two years and said second designated period of time is at most two years.
 - 3. A financial process comprising the steps of:
- (a) selecting, from the universe of asset classes, a restricted number of asset classes that have demonstrated superior returns by maintaining momentum during an existing first period of time of relatively long duration;
- (b) selecting, from these asset classes, portfolios of assets that have demonstrated superior returns by maintaining momentum during an existing second period of time of relatively short duration;
- (c) establishing and optimizing a benchmark based upon these portfolios of assets to identify a moving portfolio having calculated momentum, and

- (d) tracking and periodically updating investment decisions to monitor and maintain the calculated momentum of the moving portfolio.
- 4. The financial process of claim 3 wherein said first designated period of time is at least two years and said second designated period of time is at most two years.
 - 5. A financial system comprising:
- (a) means for selecting, from the universe of asset classes, a restricted number of asset classes that have demonstrated superior asset flows by maintaining momentum during an existing first period of time of relatively long duration;
- (b) means for selecting, from these asset classes, portfolios of assets that have demonstrated superior returns by maintaining momentum during an existing second period of time of relatively short duration;
- (c) means for establishing and optimizing a benchmark based upon these portfolios of assets to identify a moving portfolio having calculated momentum, and
- (d) means for tracking and periodically updating investment decisions to monitor and maintain the calculated momentum of the moving portfolio.
- (e) said second mentioned means for selecting operating in accordance with the following regression:

```
RMF_{t}^{i} - RTB_{t} = \alpha^{i} + \beta^{i}(RAC_{t} - RTB_{t}) + e_{t}^{i}, where
```

 RMF_{t}^{i}

= return for portfolio or mutual fund i at time t (i.e., month t),

RTB

= return for specified asset at time t,

```
\alpha^i = alpha of mutual fund i, \beta^i = beta (i.e., slope coefficient) for mutual fund i, RAC_t = return for mutual fund asset class at time t, and e_t^i = error term for mutual fund i at time t. Therefore, the estimated equation is of the form: \hat{\alpha}^i = (RMF^i - RTB) - [\hat{\beta}^i(RAC - RTB)], where alpha and beta are estimates.
```

- 6. The financial system of claim 5 wherein said first designated period of time is at least two years and said second designated period of time is at most two years.
 - 7. A financial process comprising the steps of:
- (a) selecting, from the universe of asset classes, a restricted number of asset classes that have demonstrated superior returns and/or asset flows by maintaining momentum during an existing first period of time of relatively long duration;
- (b) selecting, from these asset classes, portfolios of assets that have demonstrated superior returns by maintaining momentum during an existing second period of time of relatively short duration;
- (c) establishing and optimizing a benchmark based upon these portfolios of assets to identify a moving portfolio having calculated momentum, and
- (d) tracking and periodically updating investment decisions to monitor and maintain the calculated momentum of the moving portfolio.
- (e) said second mentioned step of selecting being performed in accordance with the following regression:

$$RMF_{t}^{i} - RTB_{t} = \alpha^{i} + \beta^{i}(RAC_{t} - RTB_{t}) + e_{t}^{i}$$

```
, where
```

```
RMF_{i}^{i}
= return for mutual fund i at time t (i.e., month t), RTB_{i}
= return for Treasury Bill at time t, \alpha^{i}
= alpha of mutual fund i, \beta^{i}
= beta (i.e., slope coefficient) for mutual fund i, RAC_{i}
= return for mutual fund asset class at time t, and e_{i}^{i}
= error term for mutual fund i at time t.

the estimated equation being of the form:
\hat{\alpha}^{i} = (RMF^{i} - RTB) - [\hat{\beta}^{i}(RAC - RTB)]
, where alpha and beta are estimates.
```

- 8. The financial process of claim 7 wherein said first designated period of time is at least two years and said second designated period of time is at most two years.
 - 9. A financial system comprising:
- (a) means for selecting, from the universe of asset classes, a restricted number of asset classes that have demonstrated superior returns and/or asset flows by maintaining momentum during an existing first period of time of relatively long duration;
- (b) means for selecting, from these asset classes, portfolios of assets that have demonstrated superior returns by maintaining momentum during an existing second period of time of relatively short duration;

- (c) means for establishing and optimizing a benchmark based upon these portfolios of assets to identify a moving portfolio having calculated momentum, and
- (d) means for tracking and periodically updating investment decisions to monitor and maintain the calculated momentum of the moving portfolio.
- (e) said second mentioned means for selecting operating in accordance with the following regression:

```
RMF_t^i - RTB_t = \alpha^i + \beta^i (RAC_t - RTB_t) + e_t^i, where

RMF_t^i
= return for mutual fund i at time t (i.e., month t),

RTB_t
= return for specified asset at time t,

\alpha^i
= alpha of mutual fund i,

\beta^i
= beta (i.e., slope coefficient) for mutual fund i,

RAC_t
= return for mutual fund asset class at time t, and

e_t^i
= error term for mutual fund i at time t, the estimated equation being in the form:

\hat{\alpha}^i = (RMF^i - RTB) - [\hat{\beta}^i (RAC - RTB)]
, where alpha and beta are estimates.
```

- 10. The financial system of claim 9 wherein said first designated period of time is at least two years and said second designated period of time is at most two years.
 - 11. A financial process comprising the steps of:

- (a) selecting, from the universe of asset classes, a restricted number of asset classes that have demonstrated superior returns and/or asset flows by maintaining momentum during an existing first period of time of relatively long duration;
- (b) selecting, from these asset classes, portfolios of assets that have demonstrated superior returns by maintaining momentum during an existing second period of time of relatively short duration;
- (c) establishing and optimizing a benchmark based upon these portfolios of assets to identify a moving portfolio having calculated momentum, and
- (d) tracking and periodically updating investment decisions to monitor and maintain the calculated momentum of the moving portfolio.
- (e) said second mentioned selecting operating in accordance with the following regression:

```
RMF_t^i - RTB_t = \alpha^i + \beta^i (RAC_t - RTB_t) + e_t^i, where

RMF_t^i
= return for mutual fund i at time t (i.e., month t),

RTB_t
= return for specified asset at time t,

\alpha^i
= alpha of mutual fund i,

\beta^i
= beta (i.e., slope coefficient) for mutual fund i,

RAC_t
= return for mutual fund asset class at time t, and

e_t^i
= error term for mutual fund i at time t, the estimated equation being in the form:

\hat{\alpha}^i = (RMF^i - RTB) - [\hat{\beta}^i (RAC - RTB)]
```

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, where alpha and beta are estimates.

- 12. The financial process of claim 11 wherein said first designated period of time is at least two years and said second designated period of time is at most two years.
 - 13. A financial system comprising:
- (a) means for selecting, from the universe of asset classes, a restricted number of asset classes that have demonstrated superior returns and/or asset flows by maintaining momentum during an existing first period of time of relatively long duration;
- (b) means for selecting, from these asset classes, portfolios of assets that have demonstrated superior returns by maintaining momentum during an existing second period of time of relatively short duration;
- (c) means for establishing and optimizing a benchmark based upon these portfolios of assets to identify a moving portfolio having calculated momentum, and
- (d) means for tracking and periodically updating investment decisions to monitor and maintain the calculated momentum of the moving portfolio.
- (e) said second mentioned means for selecting operating in accordance with the following regression:

```
RMF_{t}^{i} - RTB_{t} = \alpha^{i} + \beta^{i}(RAC_{t} - RTB_{t}) + e_{t}^{i}, where

RMF_{t}^{i}
= return for mutual fund i at time t (i.e., month t),

RTB_{t}
= return for Treasury Bill at time t,

\alpha^{i}
= alpha of mutual fund i,

\beta^{i}
= beta (i.e., slope coefficient) for mutual fund i,

RAC_{t}
```

= return for mutual fund asset class at time t, and e_i^i = error term for mutual fund i at time t, the estimated equation being in the form: $\hat{\alpha}^i = (RMF^i - RTB) - [\hat{\beta}^i (RAC - RTB)]$, where alpha and beta are estimates.

- (f) said means for establishing and optimizing operating in accordance with the following:
- (1) for each of the securities in the selected portfolio/funds, combine the unique identifier and shares data with pricing data in order to calculate market value weightings. In addition to price, add other fields such as CUSIP, transaction costs, liquidity, description, and industry sector. In short, combine the portfolio data with the asset class data for that specific benchmark. Also, for each portfolio/fund, consolidate any securities with duplicate identifiers (i.e. CUSIPS) by summing up the market value for that identifier.
- (2) for each portfolio/fund in the benchmark, calculate the estimated total market value for that portfolio as follows:

$$PMV = \sum_{i=1}^{N} Shares_{i} * Price_{i}$$

, where N = the number of securities in that portfolio/fund, and PMV = the portfolio/fund market value;

(3) Sum up all the PMVs

$$TBMV = \sum_{j=1}^{J} PMV^{j}$$

* (> 4

- , where J = the number of portfolios/funds in the benchmark (in this case 4), and TBMV = total benchmark market value);
- (4) create a scaling factor in order to equally weight the portfolios by taking the reciprocal of the weight of each portfolio as follows:

$$SF^{-j} = 1 / (PMV^{-j} / TBMV^{-})$$
 where

 SF^{j}

- = the scaling factor for the jth portfolio/fund.
 - (5) adjust the scaling factor so that the sum of the scaling factors equal unity,

$$ASF^{j} = SF^{j} / \sum_{j=1}^{J} SF^{j}$$

, where

 ASF^{j}

= the adjusted scaling factor for the jth portfolio/fund, and

$$\sum_{j=1}^{J} ASF^{j} = 1$$

. (6) adjust the securities in the benchmark so that each portfolio/fund receives an equal weight (as opposed to each security) by multiplying each security in each portfolio/fund by its appropriate adjusted scaling factor,

$$AMV_i^j = MV_i^j * ASF^j$$

, where

 AMV_i^j

= the adjusted market value of security i in portfolio/fund j; and

(7) based on step (6), create an adjusted weight for each security in each portfolio/fund in the benchmark,

$$x_i^j = AMV_i^j / (\sum_{i=1}^j \sum_{i=1}^N AMV_i^j * J)$$

, where

 x_i^j

= the weight of the ith security in the jth portfolio/fund, and

$$\sum_{i=1}^{J} \sum_{i=1}^{N} x_i^{j} = 1/J$$

(by construction).

- 14. A financial process comprising the steps of:
- (a) selecting, from the universe of asset classes, a restricted number of asset classes that have demonstrated superior returns and/or asset flows by maintaining momentum during an existing first period of time of relatively long duration;
- (b) selecting, from these asset classes, portfolios of assets that have demonstrated superior returns by maintaining momentum during an existing second period of time of relatively short duration;
- (c) establishing and optimizing a benchmark based upon these portfolios of assets to identify a moving portfolio having calculated momentum, and
- (d) tracking and periodically updating investment decisions to monitor and maintain the calculated momentum of the moving portfolio.
- (e) said second mentioned step of selecting operating in accordance with the following regression:

$$RMF_{t}^{i} - RTB_{t} = \alpha^{i} + \beta^{i}(RAC_{t} - RTB_{t}) + e_{t}^{i}$$

```
, where RMF_t^i = \text{return for mutual fund i at time t (i.e., month t)}, RTB_t = \text{return for specified asset at time t,} \alpha^i = \text{alpha of mutual fund i,} \beta^i = \text{beta (i.e., slope coefficient) for mutual fund i,} RAC_t = \text{return for mutual fund asset class at time t, and} e_t^i = \text{error term for mutual fund i at time t, the estimated equation being in the form:} \hat{\alpha}^i = (RMF^i - RTB) - [\hat{\beta}^i (RAC - RTB)] , where alpha and beta are estimates.
```

- (f) said establishing and optimizing operating in accordance with the following:
- (1) for each of the securities in the selected portfolio/funds, combine the unique identifier and shares data with pricing data in order to calculate market value weightings. In addition to price, add other fields such as CUSIP, transaction costs, liquidity, description, and industry sector. In short, combine the portfolio data with the asset class data for that specific benchmark. Also, for each portfolio/fund, consolidate any securities with duplicate identifiers (i.e. CUSIPS) by summing up the market value for that identifier.
- (2) for each portfolio/fund in the benchmark, calculate the estimated total market value for that portfolio as follows:

$$PMV = \sum_{i=1}^{N} Shares_i * Price_i$$

- , where N = the number of securities in that portfolio/fund, and PMV = the portfolio/fund market value;
 - (3) Sum up all the PMVs (i.e.,

$$TBMV = \sum_{j=1}^{J} PMV^{j}$$

- , where J = the number of portfolios/funds in the benchmark (in this case 4), and TBMV = total benchmark market value);
- (4) create a scaling factor in order to equally weight the portfolios by taking the reciprocal of the weight of each portfolio as follows:

$$SF^{-j} = 1 / (PMV^{-j} / TBMV^{-})$$
 where

 SF^{j}

- = the scaling factor for the jth portfolio/fund.
 - (5) adjust the scaling factor so that the sum of the scaling factors equal unity,

$$ASF^{j} = SF^{j} / \sum_{j=1}^{J} SF^{j}$$

, where

ASF ⁱ

= the adjusted scaling factor for the jth portfolio/fund, and

$$\sum_{i=1}^{J} ASF^{i} = 1$$

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- (b) selecting, from these asset classes, portfolios of assets that have demonstrated superior returns by maintaining momentum during an existing second period of time of relatively short duration;
- (c) establishing and optimizing a benchmark based upon these portfolios of assets to identify a moving portfolio having calculated momentum, and
- (d) tracking and periodically updating investment decisions to monitor and maintain the calculated momentum of the moving portfolio;
- (e) said second mentioned step for selecting operating in accordance with the following regression:

```
RMF_t^i - RTB_t = \alpha^i + \beta^i (RAC_t - RTB_t^i) + e_t^i, where

RMF_t^i
= return for mutual fund i at time t (i.e., month t),

RTB_t
= return for Treasury Bill at time t,

\alpha^i
= alpha of mutual fund i,

\beta^i
= beta (i.e., slope coefficient) for mutual fund i,

RAC_t
= return for mutual fund asset class at time t, and

e_t^i
= error term for mutual fund i at time t, the estimated equation being in the form:

\hat{\alpha}^i = (RMF^i - RTB) - [\hat{\beta}^i (RAC - RTB)]
, where alpha and beta are estimates;
```

- (f) said establishing and optimizing operating in accordance with the following:
- (1) for each of the securities in the selected portfolio/funds, combine unique identifier and shares data with pricing data in order to calculate market value weightings;

in addition to price, add other fields such as CUSIP, transaction costs, liquidity, description, and industry sector. In short, combine the portfolio data with the asset class data for that specific benchmark; also, for each portfolio/fund, consolidate any securities with duplicate identifiers (i.e. CUSIPS) by summing up the market value for that identifier.

(2) for each portfolio/fund in the benchmark, calculate the estimated total market value for that portfolio as follows:

$$PMV = \sum_{i=1}^{N} Shares_i * Price_i$$

- , where N = the number of securities in that portfolio/fund, and PMV = the portfolio/fund market value;
 - (3) Sum up all the PMVs (i.e.,

$$TBMV = \sum_{j=1}^{J} PMV^{j}$$

- , where J = the number of portfolios/funds in the benchmark (in this case 4), and TBMV = total benchmark market value);
- (4) create a scaling factor in order to equally weight the portfolios by taking the reciprocal of the weight of each portfolio as follows:

$$SF^{-j} = 1 / (PMV^{-j} / TBMV^{-})$$
 where

 SF^{j}

- = the scaling factor for the jth portfolio/fund.
 - (5) adjust the scaling factor so that the sum of the scaling factors equal unity,

$$ASF^{j} = SF^{j} / \sum_{j=1}^{J} SF^{j}$$

, where

 ASF^{j}

= the adjusted scaling factor for the jth portfolio/fund, and

$$\sum_{i=1}^{J} ASF^{j} = 1$$

. (6) adjust the securities in the benchmark so that each portfolio/fund receives an equal weight (as opposed to each security) by multiplying each security in each portfolio/fund by its appropriate adjusted scaling factor,

$$AMV_{i}^{j} = MV_{i}^{j} * ASF^{j}$$

, where

 AMV_i^j

- = the adjusted market value of security i in portfolio/fund j; and
- (7) based on step (6), create an adjusted weight for each security in each portfolio/fund in the benchmark,

$$x_i^j = AMV_i^j / (\sum_{i=1}^j \sum_{i=1}^N AMV_i^j * J)$$

, where

 x_i^j

= the weight of the ith security in the jth portfolio/fund, and

$$\sum_{i=1}^{J} \sum_{i=1}^{N} x_i^{j} = 1/J$$
(by construction).

ABSTRACT

The disclosed mutual fund systems, processes and products involve: selecting, from the universe of asset classes, a restricted number of asset classes that have demonstrated superior returns by maintaining momentum during an existing first period of time, say at least two years; selecting, from these asset classes, portfolios of assets that have demonstrated superior returns by maintaining momentum during an existing second period of time, say at most two years; establishing and optimizing a benchmark based upon these portfolios of assets to identify a moving portfolio having calculated momentum; and tracking and periodically updating investment decisions to monitor and maintain the calculated momentum of the moving portfolio.

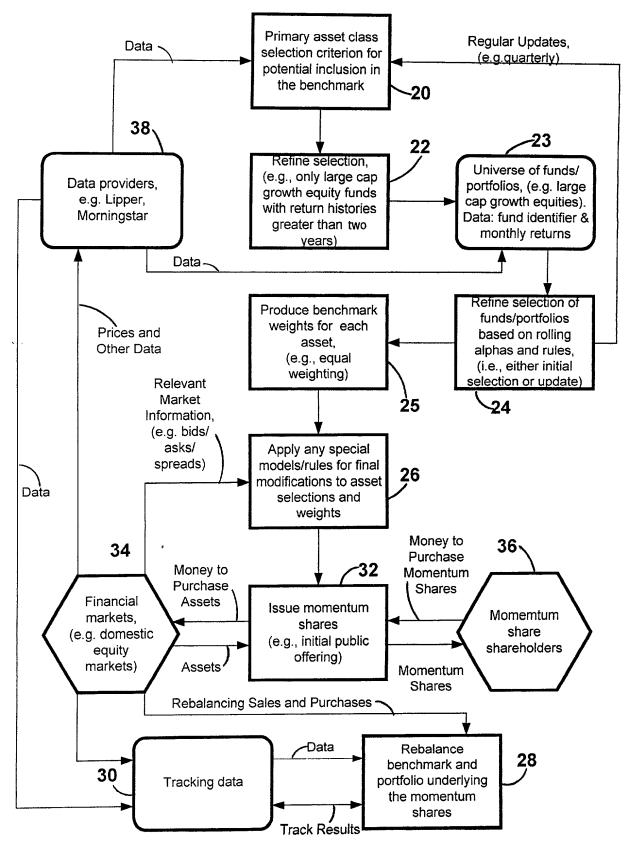


Fig. 1

Equity Funds	Total Net Assets (Mil. \$)	Rank	Estimated Net Flow (Mil. \$)	Rank	Estimated Net Flow (Mil. \$) 01/31/1990 12/31/1999 10 years	Rank
Large-Cap Growth Funds	\$507,552	4	\$74,290			1
Multi-Cap Growth Funds	\$505,773	1 2		1 2	\$150,014	
Science & Technology Funds	\$168,385	9			\$113,772 \$46,002	_
S&P 500 Funds	\$228,509	6		4	\$107,208	
Large-Cap Core Funds	\$362,813	3	\$17,798	5	\$71,334	
Multi-Cap Core Funds	\$172,192	8		6	\$59,230	
Small-Cap Growth Funds	\$79,166	14	\$5,193	7	\$21,928	12
Global Funds	\$172,441	7		8	\$48,396	8
Mid-Cap Growth Funds	\$121,106	12	\$3,865	9	\$19,536	14
Japanese Funds	\$8,467	32	\$3,035	10	\$4,322	29
Telecommunication Funds	\$12,455	28	\$2,610	11	\$3,413	31
Pacific Region Funds	\$8,591	31	\$1,993	12	\$4,930	27
Large-Cap Value Funds	\$349,444	4	\$1,779	13	\$107,304	3
Health/Biotechnology Funds	\$39,650	18	\$1,346	14	\$8,065	20
International Small-Cap Funds	\$14,999	27	\$995	15	\$4,918	28
International Funds	\$258,999	5	\$775	16	\$93,631	5
Balanced Funds	\$168,166	10	\$591	17	\$48,360	9
Specialty Diversified Equity Funds	\$1,905	38	\$331	18	\$943	35
Canadian Funds	\$83	42	(\$12)	19	(\$28)	39
Pacific Ex Japan Funds	\$5,703	34	(\$16)	20	\$2,984	32
China Region Funds	\$876	40	(\$84)	21	(\$58)	40
Gold Oriented Funds	\$1,805	39	(\$96)	22	\$824	36
Sector/Miscellaneous Funds	\$3,126	36	(\$100)	23	\$1,004	34
Balanced Target Maturity Funds	\$860	41	(\$171)	24	(\$615)	41
Latin American Funds	\$2,145	37	(\$306)	25	\$1,472	33
Natural Resources Funds	\$4,379	35	(\$321)	26	\$599	37
Emerging Markets Funds	\$23,226	25	(\$413)	27	\$16,345	17
Convertible Securities Funds	\$8,807	30	(\$1,008)	28	\$444	38
Utility Funds	\$25,740	24	(\$1,215)	29	(\$4,623)	42
Real Estate Funds	\$7,521	33	(\$1,242)	30	\$6,150	23
Small-Cap Core Funds	\$37,572	20	(\$1,854)	31	\$11,681	18
Mid-Cap Core Funds	\$52,320	16	(\$1,974)	32	\$8,984	19
European Region Funds	\$26,820	22	(\$2,479)	33	\$6,308	22
	•		•		•	

Fig. 2.1

Global Small-Cap Funds	\$26,634	23	(\$3,041)	34	\$3,639	30
Mid-Cap Value Funds	\$32,018	21	(\$3,480)	35	\$5,470	25
Flexible Portfolio Funds	\$66,668	15	(\$3,720)	36	\$18,459	15
Global Flexible Port Funds	\$22,766	26	(\$5,178)	37	\$5,721	24
Income Funds	\$39,864	17	(\$5,427)	38	\$6,484	21
Financial Services Funds	\$11,167	29	(\$5,713)	39	\$5,050	26
Small-Cap Value Funds	\$39,029	19	(\$8,795)	40	\$17,245	16
Equity Income Funds	\$98,870	13	(\$14,610)	41	\$22,922	11
Multi-Cap Value Funds	\$163,174	11	(\$33,600)	42	\$19,915	13
Total	\$3,881,782		\$139,899		\$1,069,681	

Fig. 2.2

Total Net Rank Estimated Rank Estimated Rank

Assets			Net Flow		Net Flow	
(Mil. \$)			(Mil. \$)		(Mil. \$)	
					01/31/1990	
					12/31/1999	
Fixed Income Funds			1 year		10 years	
Insti Money Market Funds	\$370,160	2	\$91,691	1	\$206,337	2
Money Market Funds	\$725,465	1	\$84,929	2	\$341,751	1
Intermediate Investment Grade Debt Funds	\$77,708	8	\$9,555	3	\$45,840	3
InstI U.S. Government Money Market Funds	\$79,651	6	\$6,139	4	\$22,802	9
Tax-Exempt Money Market Funds	\$92,327	5	\$3,793	5	\$25,242	7
California Tax-Exempt Money Market Funds	\$33,156	14	\$3,589	6	\$16,501	10
Intermediate U.S. Government Funds	\$28,135	16	\$2,792	7	\$10,313	12
U.S. Treasury Money Market Funds	\$57,724	10	\$2,356	8	\$23,492	8
U.S. Government Money Market Funds	\$77,963	7	\$2,319	9	\$29,424	6

Fig. 3.1

New York Tax-Exempt Money	\$18,178	23	\$1,454	10	\$8,417	15
Market Funds						
Short Investment Grade Debt Funds	\$22,619	21	\$1,232	11	\$3,803	20
Massachusetts Tax-Exempt Money Market Fd	\$5,090	39	\$693	12	\$3,005	23
Sh-Intmdt U.S. Government Funds	\$11,322	27	\$599	13	\$304	51
Target Maturity Funds	\$2,004	64	\$553	14	\$845	40
Short U.S. Government Funds	\$9,071	30	\$529	15	(\$413)	7 0
Other States Tax-Exempt	\$5,842	35	\$329 \$497	16		17
	\$3,042	33	Φ491	10	\$6,228	17
Money Market Fds California Intermdt Municipal	\$3,494	51	\$345	17	\$2,227	26
Debt Funds			***	4.0	00.440	
Intermediate Municipal Debt Funds	\$27,336	18	\$336	18	\$9,112	13
New Jersey Tax-Exempt	\$5,573	36	\$261	19	\$1,666	31
Money Market Funds	. ,					
Short Municipal Debt Funds	\$7,425	32	\$176	20	\$2,469	25
Ohio Tax-Exempt Money	\$3,629	50	\$86	21	\$1,801	30
Market Funds	, -,					
Massachusetts Intermediate	\$517	84	\$75	22	\$264	54
Muni Debt Fds	•					
Hawaii Municipal Debt Funds	\$1,354	72	\$74	23	\$176	59
Other States Sh-Intmdt Muni	\$1,498	69	\$68	24	\$1,147	36
Debt Fds						
Pennsylvania Tax-Exempt	\$4,587	42	\$25	25	\$2,136	27
Money Market Fds						
Georgia Municipal Debt Funds	\$951	76	\$13	26	\$301	52
New York Insured Municipal	\$2,218	60	\$8	27	\$567	46
Debt Funds	*-		•			
Florida Insured Municipal Debt	\$1,198	73	\$1	28	\$953	37
Funds	• •					
Washington Municipal Debt	\$47	89	(\$10)	29	(\$4)	68
Funds	•		(,			
Tennessee Municipal Debt	\$765	78	(\$11)	30	\$352	48
Funds	•		. ,			
South Carolina Municipal Debt Funds	\$716	79	(\$12)	31	\$63	66

Fig. 3.2

Louisiana Municipal Debt	\$434	86	(\$12)	32	\$69	65
Funds						
Virginia Municipal Debt Funds	\$2,426	57	(\$14)	33	\$886	38
Kansas Municipal Debt Funds	\$401	87	(\$16)	34	\$295	53
Virginia Intermediate Muni	\$594	81	(\$23)	35	\$141	62
Debt Fds						
Ultra-Short Obligations Funds	\$6,383	33	(\$29)	36	\$2,812	24
Missouri Municipal Debt Funds	\$995	75	(\$32)	37	\$237	57
Pennsylvania Municipal Debt	\$7,502	31	(\$32)	38	\$1,207	35
Funds	4.1		(/		•	
Sh-Intmdt Municipal Debt	\$6,102	34	(\$34)	39	\$1,348	34
Funds	*		(, ,			
Alabama Municipal Debt Funds	\$443	85	(\$37)	40	(\$8)	69
California Sh-Intmdt Municipal	\$568	82	(\$38)	41	\$320	50
Debt Fds	\$ 000	·-	(400)		•	
Florida Intermediate Municipal	\$872	77	(\$41)	42	\$246	56
	Ψ012	• •	(4)		•	
Debt Fds Tayon Municipal Debt Funds	\$344	88	(\$48)	43	(\$141)	72
Texas Municipal Debt Funds	\$655	80	(\$49)	44	\$249	55
Ohio Intermediate Municipal	φοσσ	00	(ψ-ισ)		4	
Debt Fds	\$2,878	54	(\$54)	45	\$846	39
Connecticut Tax-Exempt	Ψ2,070	04	(ψυ+)		40 .0	
Money Market Fds	\$1,131	74	(\$63)	46	\$145	61
Colorado Municipal Debt	ψ1,101	, -1	(400)		•	
Funds	\$2,348	59	(\$66)	47	\$207	58
Maryland Municipal Debt	Ψ2,040	00	(455)	• • •	•	
Funds	\$1,395	71	(\$73)	48	\$130	64
Kentucky Municipal Debt	Ψ1,000	• •	(4.0)		·	
Funds	\$4,800	41	(\$77)	49	\$3,133	22
General Bond Funds	\$2,074	62	(\$87)	50	\$320	49
North Carolina Municipal Debt	ψ2,014	· ·	(40.)		•	
Funds	\$526	83	(\$88)	51	(\$212)	77
Pennsylvania Intermediate	Ψ320	00	(400)	٠.	(+/	
Muni Debt Fds	\$4,185	43	(\$94)	52	(\$376)	78
Massachusetts Municipal Debt	ψ+,100	40	(40.7		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Funds	\$1,455	70	(\$94)	53	\$4	67
Oregon Municipal Debt Funds	\$1,793	65	(\$95)	54	\$501	47
Other States Municipal Debt	ψ1,100	50	(400)		• • •	
Funds	\$3,998	45	(\$96)	55	\$578	45
California Insured Municipal	ψ0,000		(4/		•	
Debt Funds						

Fig. 3.3

Michigan Tax-Exempt Money Market Funds	\$1,551	67	(\$120)	56	\$660	42
Arizona Municipal Debt Funds	\$2,037	63	(\$120)	57	(\$07)	74
Connecticut Municipal Debt					(\$87)	71
Funds	\$1,719	66	(\$140)	58	(\$175)	74
Intermediate U.S. Treasury Funds	\$3,826	47	(\$166)	59	\$1,803	29
International Income Funds	\$5,404	38	(\$176)	60	\$1,575	32
General U.S. Treasury Funds	\$2,738	56	(\$181)	61	(\$39)	70
Minnesota Municipal Debt	\$2,860	55		62		
Funds			(\$206)		(\$146)	73
Corporate Debt Funds BBB- Rated	\$23,624	19	(\$211)	63	\$8,914	14
New Jersey Municipal Debt	\$5,017	40	(\$212)	64	\$130	63
Funds	,		,		•	
New York Intermdt Municipal	\$2,118	61	(\$214)	65	\$657	43
Debt Funds						
Emerging Markets Debt Funds	\$3,672	49	(\$230)	66	\$1,810	28
Ohio Municipal Debt Funds	\$3,762	48	(\$241)	67	(\$182)	75
Short World Multi-Market	\$1,517	68	(\$260)	68	(\$5,965)	82
Income Funds			,		(, , ,	
Instl Tax-Exempt Money	\$36,159	13	(\$285)	69	\$8,269	16
Market Funds			•		·	
Michigan Municipal Debt Funds	\$3,237	52	(\$325)	70	(\$209)	76
Sh-Intmdt Investment Grade	\$13,504	25	(\$356)	71	\$3,761	21
Debt Funds	V 10,00 1		(4000)		40,101	
Other States Intermediate Muni	\$3,859	46	(\$361)	72	\$1,492	33
Debt Fds	Ψ0,000		(\$00.7	. –	¥1,10=	-
Florida Municipal Debt Funds	\$5,521	37	(\$543)	73	\$583	44
Adjustable Rate Mortgage	\$3,123	53	(\$669)	74	(\$11,550)	84
Funds	Ψ0, 120	00	(\$555)	• •	(411,000)	٠.
Flexible Income Funds	\$2,403	58	(\$716)	75	\$167	60
Short U.S. Treasury Funds	\$4,041	44	(\$840)	76	\$740	41
New York Municipal Debt	\$18,465	22	(\$1,257)	77	(\$1,766)	80
Funds	ψ10,400		(41,201)	• •	(41,100)	
GNMA Funds	\$38,231	12	(\$1,271)	78	(\$23,344)	87
Insured Municipal Debt Funds	\$11,700	26	(\$1,292)	79	(\$5,682)	81
Global Income Funds	\$10,397	28	(\$1,420)	80	(\$70,481)	89
High Yield Municipal Debt	\$16,870	24	(\$1,514)	81	\$4,397	19
Funds	Ψ10,010	- ⊤	(Ψ13C1∃)	٠.	Ψ-1,007	
Lulius						

Fig. 3.4

U.S. Mortgage Funds	\$9.943	29	(\$1,688)	82	(\$15,412)	85
	• •		* ' '			
General U.S. Government Fds	\$27,415	17	(\$2,198)	83	(\$28,556)	88
Corporate Debt Funds A-Rated	\$38,832	11	(\$2,246)	84	\$6,077	18
Insti U.S. Treasury Money	\$101,156	3	(\$2,324)	85	\$36,363	4
Market Funds						
Multi-Sector Income Funds	\$22,644	20	(\$3,071)	86	\$10,853	11
California Municipal Debt	\$30,621	15	(\$3,139)	87	(\$7,862)	83
Funds						
High Current Yield Funds	\$99,746	4	(\$4,915)	88	\$34,996	5
General Municipal Debt Funds	\$71,567	9	(\$7,024)	89	(\$18,412)	86
	#0.064.000		¢472.024		\$713,434	
Total	\$2,361,299		\$172,934		ФГ 13, 434	

Fig. 3.5

	Estimated Net Flow (Mil. \$) 1yr ending 12/31/1997	Rank	Estimated Net Flow (Mil. \$) 1yr ending 12/31/1998	Rank	Estimated Net Flow (Mil. \$) 1yr ending 12/31/1999	Rank
Large-Cap Growth Funds	\$12,141	7	\$32,148	1	\$74,290	1
Multi-Cap Growth Funds	\$5,981	12	(\$4,482)	40	\$35,681	2
Science & Technology Funds	\$1,386	23	\$115	21	\$34,645	3
S&P 500 Funds	\$18,545	4	\$25,305	3	\$32,037	4
Large-Cap Core Funds	\$10,334	9	\$9,769	5	\$17,798	5
Multi-Cap Core Funds	\$12,020	8	\$16,760	4	\$13,726	6
Small-Cap Growth Funds	\$4,304	16	\$1,820	12	\$5,193	7
Global Funds	\$12,826	6	\$5,537	7	\$4,059	8
Mid-Cap Growth Funds	\$1,706	21	(\$4,068)	39	\$3,865	9
Japanese Funds	(\$191)	36	\$281	19	\$3,035	10

Fig. 4.1

Talacammunication	(\$250)	37	\$586	18	\$2,610	11
Telecommunication Funds	(\$250)	31	φ000	10	φ2,010	11
Pacific Region Funds	(\$1,157)	40	(\$902)	32	\$1,993	12
Large-Cap Value Funds	\$26,096	1	\$32,099	2	\$1,779	13
Health/Biotechnology	\$988	26	\$4,989	9	\$1,346	14
Funds						
International Small-Cap	\$404	28	\$266	20	\$995	15
Funds						
International Funds	\$19,297	3	(\$764)	31	\$775	16
Balanced Funds	\$7,554	11	\$7,433	6	\$591	17
Specialty Diversified	(\$599)	39	(\$240)	27	\$331	18
Equity Funds	•					
Canadian Funds	(\$51)	34	(\$39)	23	(\$12)	19
Pacific Ex Japan Funds	(\$2,323)	41	(\$220)	26	(\$16)	20
China Region Funds	\$89	32	(\$118)	24	(\$84)	21
Gold Oriented Funds	\$171	29	\$87	22	(\$96)	22
Sector/Miscellaneous	(\$264)	38	\$614	17	(\$100)	23
Funds			(0.50)		(0474)	0.4
Balanced Target	(\$179)	35	(\$152)	25	(\$171)	24
Maturity Funds	****	.=	(#4.440)	07	(#20G)	25
Latin American Funds	\$415	27	(\$1,412) (\$4,360)	37 36	(\$306) (\$321)	25 26
Natural Resources	\$91	31	(\$1,360)	30	(\$321)	20
Funds	¢4.760	15	(\$1,074)	33	(\$413)	27
Emerging Markets	\$4,769	15	(\$1,074)	55	(ψ-10)	
Funds	\$140	30	(\$395)	29	(\$1,008)	28
Convertible Securities	φ1 4 0	50	(4000)		(4.,000)	
Funds Utility Funds	(\$2,840)	42	(\$323)	28	(\$1,215)	29
Real Estate Funds	\$4,282	17	(\$1,280)	34	(\$1,242)	30
Small-Cap Core Funds	\$4,857	14	\$4,093	10	(\$1,854)	31
Mid-Cap Core Funds	\$2,181	18	(\$726)	30	(\$1,974)	32
European Region Funds	\$1,182	25	\$5,385	8	(\$2,479)	33
Global Small-Cap Funds	\$1,812	20	(\$2,487)	38	(\$3,041)	34
Mid-Cap Value Funds	\$1,286	24	(\$1,318)	35	(\$3,480)	35
Flexible Portfolio Funds	\$2,043	19	\$2,503	11	(\$3,720)	36
Global Flexible Port	\$1,624	22	(\$5,128)	41	(\$5,178)	37
Funds						
Income Funds	\$36	33	\$1,555	15	(\$5,427)	38
	¢E EO G	13	\$1,738	14	(\$5,713)	39
Financial Services	\$5,586	13	Ψ1,1.00		·	
Funds	\$13,951	5	\$1,754	13	(\$8,795)	40
Small-Cap Value Funds	\$8,330	10	\$1,145	16	(\$14,610)	41
Equity Income Funds Multi-Cap Value Funds	\$19,878	2	(\$7,431)	42	(\$33,600)	42
Multi-Cap value Funds	4 . 0, 0 . 0		•			
Total	\$198,450		\$122,066		\$139,899	
lutai	• •					

Fig. 4.2

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-	A A		ပ	Q	ш	L	ဗ	Ξ	_	
U m 4 fb f		Fund	Cis Cis	L Cls Descripton	Latest To TNA Date A	Latest Total Net Assets (Mil. \$)	Pro IOB	Pro IOB Description	Load Type	шГ
	Large-Cap (Large-Cap Growth Funds ABN AMRO Growth, Com	TCGE.	Large-Cap Growth Funds	03/31/2000	218.5	9	Growth Funds	No Load	
6 2	. •	ABN AMRO Growth;Inv Accessor Growth;Adv	2 2 3 3 3 3 3 3 3	Large-Cap Growth Funds Large-Cap Growth Funds	03/31/2000	365.0	ഉശ	Growth Funds	No Load	
= (•	Accessor: Growth, Inv	<u>1997</u>	Large-Cap Growth Funds	03/31/2000	51.3 57.3	<u>ი</u> ი	Growth Funds Growth Funds	Level Load	
2 (2	- 7	Advantes Cap I. Connersine Advantus Horizon: A		Large-Cap Growth Funds	03/31/2000	72.1	O	Growth Funds	Front-End Load	
4	. •	Advantus Honzon;B	LCGE	Large-Cap Growth Funds	03/31/2000	29.9	O	Growth Funds	Back-End Load	
1 5	•	Advantus Honzon;C	1001 1001	Large-Cap Growth Funds	03/31/2000	2.8 98.0	ග ග	Growth Funds Growth Funds	Level Load Front-Fnd Load	
9 ₽		Aetra.Growth;A Aetra:Growth:B		Large-Cap Growth Funds	03/31/2000	50	0	Growth Funds	Back-End Load	
: œ		Aetna: Growth; C	LCGE	Large-Cap Growth Funds	03/31/2000	3.0	ග	Growth Funds	Level Load	
5		Aetna:Growth;I	LCGE	Large-Cap Growth Funds	03/31/2000	269.0	თ i	Growth Funds	Institutional Load	
8 8		AIM Eq: Blue Chip; Rtl A	100E	Large-Cap Growth Funds	03/31/2000	2930.5	ত ত	Growth & Income Funds Growth & Income Funds	Front-End Load Back-End Load	
3 2		AlM Eq:Blue Chip.Rtl C		Large-Cap Growth Funds	03/31/2000	559.9	ত	Growth & Income Funds	Level Load	
12		AIM Eq. Charter, Rtl A	LCGE	Large-Cap Growth Funds	03/31/2000	6198.2	ত	Growth & Income Funds	Front-End Load	
24		AIM Eq.Charter, Rtl B			03/31/2000	30043	ত ব	Growth & Income Funds	Back-End Load	
8 8		AIM Eq:Charter; Ktl C	2 2 2	Large-Cap Growth Funds	03/31/2000	730 B	5 C	Growth Finds	Front-Fnd Load	
4 6		Allyl Eq:Dent Demograph, A			03/31/2000	580.6	<u>ග</u>	Growth Funds	Back-End Load	
; æ		AIM Eq.Dent Demograph;C	LCGE	_	03/31/2000	222.3	Ø	Growth Funds	Level Load	
2		AIM Ed:Large Cap Gro;A	LCGE	_	03/31/2000	32.4	Ó	Growth Funds	Front-End Load	
		AIM Eq:Large Cap Gro;B	LCGE	_	03/31/2000	19.5	ග	Growth Funds	Back-End Load	
3		AIM Eq:Large Cap Gro;C	LCGE	_	03/31/2000	8.3	Ø	Growth Funds	Level Load	
83		AIM Eq:Wngarten; Rtl A	LCGE	_	03/31/2000	10778.9	O (Growth Funds	Front-End Load	
æ		AIM Eq:Wngarten;Rtl B	H00H	_	03/31/2000	1963.6	ტ ,	Growth Funds	Back-End Load	
7		AlM En Wingarten Rtl C.	П.С.	Large-Can Growth Funds	12000 L	737.5	C	Growth Finds	evelload	*

Fig. 5.1

	\$ > △ □ 7	`			Ω ₩	£ \$4 \$4 (10 ∰ 13 €) 100% ·	·				
		¬	~		Σ	Z	0	۵	o	22	
- 25		=#					11/30/1989	12/31/1989	01/31/1990	02/28/1990	8 2
		Latest Total	Turnover				Cum	Cum		Cum	
5 Type 5		Expense Ratio Portfolio	Portfolio	Symbol	Code	Company Name	Tot Return	Tot Return	Tot Return	Tot Return	Ö
3 No Load	_	1.060	50	RGTCX	ABN	ABN AMRO ASSET MGMT INC	N/A	N/A	N/A	N/A	
9 Front-End Load	nd Load	1.520	8	AGISX	ABN	ABN AMRO ASSET MGMT INC	NA	N/A	N/A	¥%	
10 No Load		0.920	112	AGROX	ACS	ACCESSOR CAPITAL MGMT LP	N/A	N/A	N/A	ΑX	
11 Level Load	pe	N/A	N/A	AGRIX	ACS	ACCESSOR CAPITAL MGMT LP	N/A	N/A	N/A	N/A	
12 No Load	_	N/A	XX XX	ADCRX	₽	ADVANCE CAPITAL MGMT INC	A/N	N/A	N/A	ΑN	
13 Front-End Load	nd Load	1.300	8	ADIOX	ADS	ADVANTUS CAPITAL MGMT	2.06	-8.27	1.89	4.18	
14 Back-End Load	nd Load	2.040	8	ADHBX	ADS	ADVANTUS CAPITAL MGMT	N/A	N/A	ΑX	N/A	
15 Level Load	ad	2.040	8		ADS	ADVANTUS CAPITAL MGMT	N/A	NA	N/A	N/A	
16 Front-End Load	nd Load	1.190	142	AEGAX	AET	AETNA LIFE INS & ANNTY	N/A	N/A	NA	N/A	
17 Back-End Load	nd Load	1.940	142		AET	AETNA LIFE INS & ANNTY	N/A	N/A	ΝΆ	ΝΆ	
18 Level Load	ad	1.940	142		AET	AETNA LIFE INS & ANNTY	N/A	N/A	A'S	N/A	
19 Institution	Institutional Load	0 940	142	AEGRX	AET	AETNA LIFE INS & ANNTY	N/A	N/A	ΝΆ	ΝΆ	
20 Front-End Load	nd Load	1.190	22	ABCAX	AIM	AIM ADVISORS INC	4.24	-6.27	1.05	2.53	
21 Back-End Load	nd Load	1.910	22	ABCBX	AIM A	AIM ADVISORS INC	N/A	N/A	NA	ΝΆ	
22 Level Load	ad	1.900	22	ABCCX	AIM	AIM ADVISORS INC	N/A	N/A	ΝΆ	N/A	
23 Front-End Load	nd Load	1.050	107	CHTRX	AIM	AIM ADVISORS INC	0.30	-6.14	1.47	2.26	
	nd Load	1.800	107	BCHTX	ΑM	AIM ADVISORS INC	N/A	NA	ΑX	N/A	
25 Level Load	ad	1.800	107		ΑM	AIM ADVISORS INC	N/A	NA	Ν	N/A	
26 Front-End Load	nd Load	N/A	N/A		₽M	AIM ADVISORS INC	N/A	ΝΆ	ΝΆ	ΑX	
27 Back-End Load	nd Load	N/A	XX XX		AIM		N/A	NA	ΑX	A/N	
28 Level Load	nad	N/A	χχ	ADDCX	ΑM	AIM ADVISORS INC	NA	N/A	ΝΆ	ΝΆ	
29 Front-End Load	nd Load	1.530	7	LCGAX	ΑM	AIM ADVISORS INC	N/A	N/A	NA	Ν	
30 Back-End Load	nd Load	2.230	7	CGBX	¥ ¥	AIM ADVISORS INC	NA	N/A	NA	A/N	
31 Level Load	nad	2.230	7		ΑM	AIM ADVISORS INC	A/N	N/A	N/A	¥¥	
32 Front-End Load	nd Load	1.030	124	VEINX	AIM	AIM ADVISORS INC	0.26	-8.14 4	2.22	5.06	
33 Back-End Load	nd Load	1.820	124	BWEIX	ΑIM	AIM ADVISORS INC	Υ'N	N/A	NA	Ν	
34 Level Load	nad	1.820	124	CWEIX	AIM AIM	AIM ADVISORS INC	A/N	N/A	NA	Ϋ́	•
2 A A			: : :			/ Late - 1/2 - 1/2 / 4 - 1/2 - 1/2 / 4 - 1/2 - 1/2 / 4 - 1/2 - 1/2 / 4 - 1/2 - 1/2 / 4 - 1/2 - 1/2 / 4 - 1/2 - 1/2 / 4 - 1/2 - 1/2 / 4 -		•			

Fig. 5.2

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Octaon 1999 CATA 11999 CATA 1199 CATA 1199 </th <th>:</th> <th>₩</th> <th></th> <th>λQ</th> <th>ZQ</th> <th>EA</th> <th>EB</th> <th>EC</th> <th>ED</th> <th>出</th> <th>EF</th> <th>EG</th> <th>击</th> <th></th>	:	₩		λQ	ZQ	EA	EB	EC	ED	出	EF	EG	击	
Outmath Country Country Country Country Country Country Country Country Country Country Country Country Country	88 88 84	/31/1999 /30/1999	04/30/1999 05/31/1999	05/31/1999										
1.39 3.09 7.09 -5.43 -2.01 -2.66 8.31 2.12 6.65 -5.79 4.63 -1.21 -4.14 6.57 -3.69 -0.19 -1.87 3.29 3.24 9.29 6.81 2.69 -1.21 -4.16 6.27 -3.69 -0.13 -1.86 7.27 3.20 9.23 6.81 2.69 -1.24 -4.16 6.27 -3.69 -0.13 -1.86 7.27 3.20 9.23 6.81 2.69 -0.19 -3.70 8.02 -2.54 1.82 -2.64 7.00 3.68 6.94 -3.76 0.23 -0.19 -3.70 8.02 -2.54 1.82 -2.64 7.00 3.68 6.94 -3.76 0.23 -0.23 -3.74 8.02 -3.31 1.19 -1.65 5.22 4.29 10.18 -5.15 7.75 0.24 -3.74 8.03 -1.12 -1.65 5.22 4.29 10.1			cum Tot Return	etnru		Tot Return	Tot Return	Tot Return	Tot Return	Tot Return	Culin Tot Return	Tot Return	Tot Return	
1.39 -3.09 7.09 -5.43 -2.01 -2.66 831 2.12 6.66 -5.79 4.63 1.34 -3.10 7.06 -5.46 -2.09 -2.73 8.30 2.07 6.68 -5.79 4.63 -1.21 -4.14 6.27 -3.56 -0.13 -1.81 7.29 3.24 -9.29 6.84 2.69 -1.24 -4.16 6.27 -3.56 -0.13 -1.87 5.24 7.00 3.69 6.94 3.76 6.84 2.69 -0.19 -3.70 8.22 -3.30 1.19 -1.57 5.28 4.35 10.26 -5.10 0.23 -0.19 -3.72 8.10 -3.31 1.12 -1.66 5.22 4.29 10.18 2.16 7.76 -0.23 -3.74 8.09 -1.12 -1.66 5.22 4.74 4.26 1.26 4.46 7.76 -0.24 8.76 -1.10 -0.32 -2.27 4.7														
1.34 3.10 7.06 5.46 2.08 2.73 8.30 2.07 6.58 5.78 4.54 1.21 4.14 6.35 3.65 0.10 1.81 7.29 3.24 9.29 6.81 2.89 1.23 4.16 6.27 3.59 0.10 1.87 5.29 9.29 6.81 2.89 0.19 3.70 8.22 3.30 1.19 -1.57 5.29 4.36 6.93 3.76 0.29 0.19 3.70 8.22 3.30 1.19 -1.57 5.29 4.36 6.93 -3.76 0.22 0.23 -3.72 8.10 -3.31 1.19 -1.57 5.29 4.20 10.17 5.15 7.75 0.23 -2.42 8.78 -1.09 -0.32 -2.27 4.79 4.20 10.17 5.15 7.75 0.24 -2.48 8.66 -1.12 0.32 -2.37 4.76 4.20 10.17 5.15		1.39	90 E	7.09	-5.43	-2.01	-2 66	831	2.12	6.65	-5.79	4.63	96 8	
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0.63 2.96 6.20 2.54 1.82 -2.64 7.00 3.68 6.94 -3.76 0.23 0.19 -3.70 8.22 -3.30 1.19 -1.67 5.28 4.36 10.76 -5.16 7.76 0.23 -3.72 8.10 -3.31 1.10 -1.66 5.22 4.29 10.17 -5.16 7.76 0.24 -2.42 8.78 -1.09 -0.32 -2.27 4.78 4.20 10.18 -5.16 7.76 0.24 -2.49 8.71 -1.18 -0.36 -2.33 4.67 4.15 12.69 4.56 7.36 0.33 -2.49 8.71 -1.18 -0.37 -2.23 4.67 4.26 1.26 -4.56 7.36 0.34 -2.49 8.71 -1.18 -0.37 -2.23 4.67 4.26 12.65 -4.56 7.36 1.05 -2.99 6.22 -2.84 -0.89 -1.04 4.26 12.6	ın	-1.24	-4.16	6.27	-3.59	-0.13	-1 85	7.27	3.20	9.23	-6.84	2.62	7.96	
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0.23 -3.72 8.10 -3.31 1.09 -1.86 5.21 4.32 10.17 -5.15 7.76 0.23 -3.74 8.09 -3.33 1.12 -1.65 5.22 4.29 10.18 -5.15 7.76 0.24 -2.42 8.78 -1.09 -0.32 -2.27 4.76 12.69 -4.56 7.75 0.24 -2.49 8.71 -1.18 -0.37 -2.23 4.66 4.13 12.62 -4.56 7.75 0.24 -2.49 8.71 -1.18 -0.37 -2.23 4.74 4.26 12.62 -4.56 7.35 0.33 -2.43 8.78 -1.08 -0.27 -2.23 4.74 4.26 12.62 -4.56 7.35 1.10 -2.95 6.22 -2.84 -0.83 -1.04 4.26 12.62 -4.46 7.42 1.05 -2.96 6.22 -2.84 -0.83 -1.04 4.26 12.62 -4.46	co	-0.19	-370	8.22	-3.3 0	1 19	-1.57	5 28	4.35	10.26	-5.10	7 81	6.01	
0.23 374 8 09 -333 1.12 -1.66 5.22 4 29 10.18 -5.15 7.75 0.29 2.42 8.78 -1.09 -0.32 -2.27 4.78 4.20 12.69 -4.50 7.43 0.24 2.48 8.67 -1.19 -0.37 -2.23 4.67 4.15 12.62 -4.56 7.35 0.24 2.48 8.66 -1.12 -0.37 -2.23 4.67 4.15 12.62 -4.56 7.32 1.10 2.96 6.29 -2.77 -0.79 -0.98 7.02 3.23 8.63 -3.30 1.57 1.02 2.99 6.22 -2.84 -0.86 -1.02 9.26 3.16 8.63 -3.36 1.52 1.05 2.99 6.22 -2.84 -0.86 -1.02 9.65 3.16 8.56 3.36 1.52 1.43 2.68 7.22 -2.74 4.12 1.14 4.26 1.56	_	-0.23	-3.72	8.10	.i.)	1.09	-1.66	5.21	4.32	10.17	-5.15	7.76	5.92	
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0.24 2.48 8.65 -1.12 -0.36 -2.33 4.67 4.15 12.62 -4.56 7.36 0.24 -2.49 8.71 -1.18 -0.37 -2.23 4.66 4.13 12.62 -4.46 7.32 0.33 -2.43 8.78 -1.08 -0.27 -2.23 4.74 4.26 12.62 -4.45 7.32 1.10 -2.96 6.29 -2.77 -0.79 -0.98 7.02 3.28 8.63 -3.36 1.57 1.05 -2.99 6.22 -2.84 -0.83 -1.02 6.96 3.16 8.58 -3.36 1.57 1.05 -2.99 6.22 -2.84 -0.88 -1.02 6.96 3.16 8.58 3.36 1.52 1.05 -2.99 6.22 -2.84 -0.18 -1.29 5.96 3.16 8.58 3.36 1.52 1.31 -2.77 7.24 -3.89 -0.18 -1.29 5.86 4.1	m	0.29	-2.42	8.78	 	- - - 32	-2.27	4.78	4.20	12.59	-4.50	7.43	7.39	
0.24 -2.49 871 -1.18 -0.37 -2.30 4.66 4 13 12.65 -4.54 7.32 0.33 -2.43 8.78 -1.08 -0.27 -2.23 4.74 4.26 12.62 -4.46 7.42 1.10 -2.96 6.29 -2.77 -0.79 -0.98 7.02 3.23 8.63 -3.30 1.67 1.02 -2.99 6.22 -2.84 -0.08 -1.02 6.96 3.16 8.58 -3.36 1.57 1.05 -2.99 6.22 -2.84 -0.08 -1.02 6.96 3.16 8.58 -3.36 1.52 1.43 -2.77 7.26 -3.84 -0.18 -1.29 5.86 4.12 11.41 -3.73 3.30 1.37 -2.77 7.24 -3.89 -0.18 -1.29 5.86 4.12 11.44 -3.72 12.91 N/A N/A N/A 1.57 0.73 0.09 9.00 9.74 </td <td>4</td> <td>0.24</td> <td>-2.48</td> <td>8.65</td> <td>-1.12</td> <td>-0 -38</td> <td>-2.33</td> <td>4.67</td> <td>4.15</td> <td>12 52</td> <td>-4.56</td> <td>7.36</td> <td>7.28</td> <td></td>	4	0.24	-2.48	8.65	-1.12	-0 -38	-2.33	4.67	4.15	12 52	-4.56	7.36	7.28	
0.33 -2.43 8.78 -1.08 -0.27 -2.23 4.74 4.26 12.62 -4.45 7.42 1.10 -2.96 6.29 -2.77 -0.79 -0.98 7.02 3.23 8.63 -3.30 1.57 1.02 -2.99 6.22 -2.84 -0.85 -1.02 6.96 3.16 8.58 -3.36 1.52 1.05 -2.99 6.22 -2.84 -0.85 -1.02 6.96 3.16 8.58 -3.36 1.52 1.43 -2.99 6.22 -2.84 -0.06 -1.28 5.93 4.70 11.60 -3.78 1.52 1.43 -2.69 7.26 -3.84 -0.18 -1.29 5.86 4.12 11.41 -3.73 3.30 1.37 -2.77 7.24 -3.83 -0.18 -1.29 5.86 4.12 11.41 -3.73 3.30 NA NA 1.57 0.73 0.27 8.98 9.00 15.00 </td <td>m</td> <td>0.24</td> <td>-2 49</td> <td>871</td> <td>-1.18</td> <td>-0.37</td> <td>-2.30</td> <td>4.66</td> <td>4 13</td> <td>12.55</td> <td>-4.54</td> <td>7.32</td> <td>7.33</td> <td></td>	m	0.24	-2 49	871	-1.18	-0.37	-2.30	4.66	4 13	12.55	-4.54	7.32	7.33	
1.10	on.	0.33	-2.43	8.78	-1.08	-0.27	-2.23	4.74	4.26	12.62	-4.45	7 42	7.41	
1.02 2.99 6.22 -2.84 -0.83 -1.04 6.96 3.18 8.56 -3.36 1.52 1.05 -2.99 6.22 -2.84 -0.85 -1.02 6.96 3.16 8.58 -3.36 1.52 1.43 -2.89 6.22 -2.84 -0.86 -1.29 6.96 3.16 8.58 -3.36 1.52 1.37 -2.77 7.24 -3.84 -0.18 -1.29 5.86 4.12 11.41 -3.73 3.30 1.31 -2.77 7.24 -3.83 -0.18 -1.29 5.86 4.12 11.41 -3.72 3.30 N/A N/A 1.57 0.73 0.27 8.98 9.80 15.44 -3.72 12.91 N/A N/A 1.57 0.73 0.09 9.00 9.74 16.88 -2.79 12.89 -1.79 -3.16 7.52 -2.58 0.09 9.00 9.74 16.88 -2.79 12.89 <td>m</td> <td>1.10</td> <td>-2.95</td> <td>6.29</td> <td>-2.77</td> <td>-0.79</td> <td>-0.98</td> <td>7.02</td> <td>3.23</td> <td>8.63</td> <td>-3.30</td> <td>1.57</td> <td>8.85</td> <td></td>	m	1.10	-2.95	6.29	-2.77	-0.79	-0.98	7.02	3.23	8.63	-3.30	1.57	8.85	
1.05 -2.99 6.22 -2.84 -0.86 -1.02 6.96 3.16 8.68 -3.36 1.52 1.43 -2.69 7.26 -3.75 -0.06 -1.28 5.93 4.20 11.50 -3.68 3.37 1.37 -2.77 7.26 -3.84 -0.18 -1.29 5.86 4.12 11.41 -3.73 3.30 1.31 -2.77 7.24 -3.83 -0.18 -1.29 5.86 4.12 11.41 -3.73 3.30 N/A N/A 1.57 0.73 0.27 8.98 9.80 15.70 12.91 N/A N/A 1.57 0.73 0.09 9.00 9.74 16.88 -2.79 12.89 -1.79 -3.16 7.62 -2.48 0.09 9.00 9.74 16.88 -2.79 12.89 -1.79 -3.16 7.52 -2.88 0.09 9.00 9.74 16.88 -2.79 12.83 -1.79 <td>œ</td> <td>1.02</td> <td>-2 99</td> <td>6.22</td> <td>-2.84</td> <td>-0.83</td> <td>-1.04</td> <td>6.96</td> <td>3.18</td> <td>8.56</td> <td>3.36</td> <td>1.52</td> <td>8.79</td> <td></td>	œ	1.02	-2 99	6.22	-2.84	-0.83	-1.04	6.96	3.18	8.56	3.36	1.52	8.79	
1.43 -2.69 7.26 -3.75 -0.06 -1.28 5.93 4.20 1150 -3.68 3.37 1.37 -2.77 7.26 -3.84 -0.18 -1.29 5.86 4.12 11.41 -3.73 3.30 1.31 -2.77 7.24 -3.83 -0.18 -1.29 5.86 4.12 11.44 -3.72 3.30 N/A N/A 1.57 0.73 0.27 8.98 9.80 16.90 -2.72 12.91 N/A N/A 1.57 0.73 0.09 9.00 9.74 16.88 -2.79 12.83 N/A 1.57 0.73 0.09 9.00 9.74 16.88 -2.79 12.83 N/A 3.26 7.52 -2.48 0.19 -0.19 6.41 6.50 1.01 20.86 N/A -3.26 7.52 -2.58 0.09 -0.19 6.43 6.58 14.93 0.87 20.86 -0.30	5	1.05	-2.99	6.22	-2.84	-0.85	-1.02	6.96	3.16	8.58	-3.36	1.52	8.79	
1.37 -2.77 7.26 -3.84 -0.18 -1.29 5.86 4.12 11.41 -3.73 3.30 1.31 -2.77 7.24 -3.83 -0.18 -1.29 5.85 4.12 11.44 -3.72 3.30 N/A N/A 1.57 0.73 0.27 8.98 9.80 15.70 12.91 N/A N/A 1.57 0.73 0.09 9.00 9.74 16.88 -2.79 12.83 N/A N/A 1.57 0.73 0.09 9.00 9.74 16.88 -2.79 12.83 N/A 3.16 7.62 -2.48 0.19 -0.19 6.41 6.64 15.03 1.01 20.87 N/A -3.26 7.52 -2.58 0.09 -0.19 6.43 6.58 14.93 0.87 20.86 -0.30 -1.70 7.00 -2.79 0.63 0.78 4.44 6.78 16.51 16.23 -0.35	œ	1.43	-2.69	7.26	-3.75	-0.06	-1.28	5.93	4.20	11 50	-3 68 -	3.37	8.75	
1.31 -2.77 7.24 -3.83 -0.18 -1.29 5.85 4.12 11.44 -3.72 3.30 11.84 N/A N/A 1.57 0.73 0.27 8.98 9.80 15.90 -2.72 12.91 12.91 N/A N/A 1.57 0.73 0.09 9.00 9.74 15.88 -2.79 12.89 12.89 N/A N/A 1.57 0.73 0.09 9.00 9.74 15.88 -2.79 12.89 12.89 N/A -3.25 2.58 0.09 -0.19 6.41 6.64 15.03 1.01 20.87 N/A -3.25 7.52 -2.58 0.09 -0.19 6.43 6.58 14.93 0.87 20.86 0.30 -1.70 7.00 -2.70 -0.63 0.78 4.50 6.85 10.65 3.62 16.33 -0.36 -1.76 6.92 -2.79 -0.65 0.09 4.44 6.78 10.57 -3.67 15.25 -0.36 -0.36 -1.76 6.96 -2.79 -0.65 0.09 0.73 4.43 6.77 10.52 -3.67 15.25	7	1.37	-2.77	7.26	-3.84	-0.18	-1.29	5.86	4.12	11.41	-3.73	330	8.71	
N/A N/A N/A 1.57 0.73 0.27 8.98 9.80 15.90 -2.72 12.91 N/A N/A N/A 1.57 0.73 0.09 9.00 9.74 15.88 -2.79 12.89 N/A N/A N/A 1.57 0.73 0.09 9.00 9.74 15.88 -2.79 12.83 -1.79 -3.16 7.62 -2.48 0.19 -0.19 6.41 6.64 15.03 1.01 20.87 N/A -3.25 7.52 -2.58 0.09 -0.19 6.43 6.58 14.93 0.87 20.86 -0.30 -1.70 7.00 -2.70 -0.63 0.78 4.50 6.85 10.65 3.62 15.33 -0.35 -1.76 6.92 -2.79 -0.65 0.69 4.44 6.78 10.57 -3.67 15.25 -0.36 -1.80 6.96 -2.79 -0.69 0.73 4.43 6.77 10.52 -3.67 15.25	4	1.31	-2.77	7.24	.3.83	-0.18	-1.29	5.85	4.12	11.44	-3.72	3.30	8.69	
NVA 1.57 0.73 0.09 9.00 9.74 15.88 -2.79 12.89 NVA 1.57 0.73 0.09 9.00 9.74 15.88 -2.79 12.89 7.62 -2.48 0.19 -0.19 6.41 6.64 15.03 1.01 20.87 7.52 -2.58 0.09 -0.28 6.43 6.58 14.93 0.87 20.86 7.52 -2.58 0.09 -0.19 6.43 6.48 15.01 0.87 20.78 7.00 -2.70 -0.63 0.78 4.50 6.85 10.65 -3.62 15.33 6.92 -2.79 -0.65 0.69 4.44 6.78 10.57 -3.67 15.25 6.96 -2.79 -0.69 0.73 4.43 6.77 10.52 -3.67 15.25	N/A	ΧX	A/N	A/A	1.57	0.73	0.27	8.98	9.80	15.90	-2.72	12.91	0.71	
N/A 1.57 0.73 0.09 9.00 9.74 15.88 -2.79 12.83 7.62 -2.48 0.19 -0.19 6.41 6.64 15.03 1.01 20.87 7.52 -2.58 0.09 -0.28 6.43 6.58 14.93 0.87 20.86 7.52 -2.58 0.09 -0.19 6.43 6.48 15.01 0.87 20.78 7.00 -2.70 -0.63 0.78 4.50 6.85 10.65 -3.62 15.33 6.92 -2.79 -0.65 0.69 0.73 4.43 6.77 10.62 -3.67 15.25 6.96 -2.79 -0.69 0.73 4.43 6.77 10.62 -3.67 15.25	N/A	₹ Ž	A/N	NA	1.57	0.73	0.09	9.00	9.74	15.88	-2.79	12.89	0.59	
7.62 -2.48 0.19 -0.19 6.41 6.64 15.03 1.01 20.87 7.52 -2.58 0.09 -0.28 6.43 6.58 14.93 0.87 20.86 7.52 -2.58 0.09 -0.19 6.43 6.48 15.01 0.87 20.78 7.00 -2.70 -0.63 0.78 4.50 6.85 10.65 -3.62 15.33 6.92 -2.79 -0.65 0.69 4.44 6.78 10.57 -3.67 15.22 6.96 -2.79 -0.69 0.73 4.43 6.77 10.62 -3.67 15.25	¥,¥	Ϋ́	N.A.	ΑΆ	1.57	0.73	0.09	9.00	9.74	15.88	-2.79	12.83	0.65	
7.52 -2.58 0.09 -0.28 6.43 6.58 14.93 0.87 20.86 7.52 -2.58 0.09 -0.19 6.43 6.48 15.01 0.87 20.78 7.00 -2.70 -0.63 0.78 4.50 6.85 10.65 -3.62 15.33 6.92 -2.79 -0.65 0.69 4.44 6.78 10.57 -3.67 15.22 6.96 -2.79 -0.69 0.73 4.43 6.77 10.62 -3.67 15.25	¥¥ M¥	-1.79	-3.16	7.62	-2.48	0.19	-0.19	6.41	6.64	15.03	1.01	20.87	373	
7.52 -2.58 0.09 -0.19 6.43 6.48 15.01 0.87 20.78 7.00 -2.70 -0.63 0.78 4.50 6.85 10.65 -3.62 15.33 6.92 -2.79 -0.65 0.69 4.44 6.78 10.57 -3.67 15.22 6.96 -2.79 -0.69 0.73 4.43 6.77 10.52 -3.67 15.25	N/A	A/N	-3.25	7.52	-2.58	0.09	-0.28	6.43	6.58	14.93	0.87	20.86	3.69	
7.00 -2.70 -0.63 0.78 4.50 6.85 10.65 -3.62 15.33 6.92 -2.79 -0.65 0.69 4.44 6.78 10.57 -3.67 15.22 6.96 -2.79 -0.69 0.73 4.43 6.77 10.52 -3.67 15.25	N∕A	N/A	-3.25	7.52	-2.58	0.09	-0.19	6.43	6 48	15.01	0.87	20.78	3.69	
6.92 -2.79 -0.65 0.69 4.44 6.78 10.57 -3.67 15.22 6.96 -2.79 -0.69 0.73 4.43 6.77 10.52 -3.67 15.25	6.00	-0.30	-1.70	7.00	-2.70	-0.63	0.78	4.50	6.85	10 65	-3.62	15.33	2 27	
6.96 -2.79 -0.69 0.73 4.43 6.77 10.52 -3.67 15.25	5.90	-0.35	-1.76	6.92	-2.79	-0.65	0.69	4.44	6.78	10.57	-3.67	15.22	2.22	
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Fig. 5.3

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522	UAM:Sirach Egty;Inst	LCGE	Large-Cap Growth Funds	03/31/2000	54.2	ග	Growth Funds	
523	UAM Sirach Growth Inst	LCGE	Large-Cap Growth Funds	03/31/2000	72.2	ග	Growth Funds	Institutional Load
524	UAM: Sirach Growth; Int Sv	LCGE	Large-Cap Growth Funds	03/31/2000	11.0	ග	Growth Funds	Institutional Load
525	UBS Inv US La Cap Gro	HCGE	Large-Cap Growth Funds	03/31/2000	7.7	ග	Growth Funds	Level Load
526	UMB Scout Stock Select	LCGE	Large-Cap Growth Funds	03/31/2000	7.9	ග	Growth Funds	No Load
527	Unified: Starwood Strat	1997 1	Large-Cap Growth Funds	03/31/2000	3.4	ტ	Growth Funds	No Load
528	United Vanguard Fund; A	HCGE	Large-Cap Growth Funds	03/31/2000	3013.2	ტ	Growth Funds	Front-End Load
529	United Vanguard Fund, Y	LCGE	Large-Cap Growth Funds	03/31/2000	19.6	ග	Growth Funds	Institutional Load
530	Universal Capital Growth	LCGE	Large-Cap Growth Funds	02/29/2000	18.3	క	Capital Appreciation Funds	Front-End Load
531	USAA First Srt Growth	LCGE	Large-Cap Growth Funds	03/31/2000	235.3	ശ	Growth Funds	No Load
532	Value Line Fund	LCGE	Large-Cap Growth Funds	03/31/2000	503.3	᠐	Growth & Income Funds	No Load
533	Value Line Lyge Growth	H001	Large-Cap Growth Funds	03/31/2000	785.7	ర్ట	Capital Appreciation Funds	No Load
534	Value Line Multinatl Co	LCGE	Large-Cap Growth Funds	03/31/2000	45.1	ত	Growth & Income Funds	No Load
535	Van Kampen Eq Gro;A	LCGE	_	03/31/2000	37.1	ტ	Growth Funds	Front-End Load
536	Van Kampen Eq Gro.B	LCGE	_	03/31/2000	44.1	ග	Growth Funds	Back-End Load
537	Van Kampen Eq Gro,C	HCGE	_	03/31/2000	15.7	ග	Growth Funds	Level Load
538	Vanguard Growth Indx; Ins	LCGE		03/31/2000	633.2	ഗ	Growth Funds	Institutional Load
539	Vanguard Growth Indx; Inv	LCGE	_	03/31/2000	16387.4	ഗ	Growth Funds	No Load
540	Vanguard US Growth	HCGE		03/31/2000	20038.9	ග	Growth Funds	No Load
541	WellsFargo:Lg Co Gr,A	LCGE	_	03/31/2000	292.6	O	Growth Funds	Front-End Load
542	WellsFargo:Lg Co Gr.B	LCGE	_	03/31/2000	378.3	ഗ	Growth Funds	Back-End Load
543	WellsFargo:Lg Co Gr.l	ECGE		03/31/2000	1366.2	ဖ	Growth Funds	Institutional Load
544	White Oak Growth Stock	LCGE	_	03/31/2000	3701.8	ග	Growth Funds	No Load
545	Wilshire Tgt:LC Gr.Inst	HCGE	_	03/31/2000	121.7	ග	Growth Funds	Institutional Load
546	Wilshire Tgt:LC Gr;Inv	LCGE		03/31/2000	609.8	တ	Growth Funds	No Load
547	WM: Growth; A	H001	_	03/31/2000	414.7	O	Growth Funds	Front-End Load
548	WM: Growth; B	LCGE	_	03/31/2000	516.3	ග	Growth Funds	Back-End Load
549	WM:Growth;i	LCGE	_	03/31/2000	477.1	ග	Growth Funds	Institutional Load
550	Wp Stewart Growth Fund	LCGE		03/31/2000	76.3	ტ	Growth Funds	No Load
551	WT:Wilm Lg Cap Gro;Instl	CGE	_	03/31/2000	3200	ပ	Growth Funds	No Load
552	Average/Total				583102.9			
553	Median				76.3			
554								,
555	1)	th cotton	A ME colortion #2 / ME colo	ction #3 / Tracking	TR / Dos	ahla me	whod to &C selection / 4	• 💆
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Fig. 5.4

W Microsoft Evcel - Patent #4 (BCS example)	(BCS example)							X 6 -
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522 Institutional Load	0.900	121 SIEQX		UAM FUND SERVICES INC	K/N	ΑX	ΥX	
523 Institutional Load	1.010			UAM FUND SERVICES INC	N/A	ΝA	¥ Ž	N/A
524 Institutional Load	1 240	SGWSX	X UAM	UAM FUND SERVICES INC	ΝΆ	Z Z	A/N	N/A
	1.570	51	NBS	UBS A G /UBS BRINSON	A/A	ΝΆ	ΝΆ	NA
526 No Load	N/A	N/A	OMB	UMB BANK N.A.	N/A	N/A	N/A	NA
527 No Load	1.500	120 STRWX		UNIFIED INV ADVISERS INC	ΝΆ	N/A	N/A	NA
528 Front-Find Load	1.130		WNR	WADDELL & REED INV MGMT CO	0.72	-5.99	3.10	3.36
579 Institutional Load	0.900			WADDELL & REED INV MGMT CO	ΑN	ΚX	ΝΆ	NA
	2,000	71 UCGFX		GRAVER BOKHOF GOODWIN & SULLIVAN LP	N/A	ΑΆ	NA	NA
	1,650		NSA NSA	USAA INVESTMENT MGMT CO	ΝΆ	ΑX	ΝΆ	ΝΆ
532 No Load	0.770	98 VLIFX		VALUE LINE INC	0.32	76.7-	1.73	4.26
533 No Load	0.870	54 VALLX		VALUE LINE INC	0.83	-8.58	1.56	3.64
534 No Load	1.580	36 VLUMIX	\ 	VALUE LINE INC	N/A	ΝΆ	N/A	ΝΆ
535 Front-End Load	1,500		XX.	VAN KAMPEN INV ADV CORP	ΑN	N/A	ΚX	N/A
536 Back-End Load	2.250	126 VEGBX	¥× ××	VAN KAMPEN INV ADV CORP	N/A	N/A	ΝΆ	N/A
537 Level Load	2.250	126 VEGCX		VAN KAMPEN INV ADV CORP	N/A	N/A	N/A	NA
538 Institutional Load	0.120			VANGUARD GROUP INC	ΝΆ	ΚX	ΝΆ	ΝΆ
539 No Load	0.220	29 VIGRX	VAN	VANGUARD GROUP INC	N/A	Z/A	¥⁄N	NA
540 No Load	0 330			VANGUARD GROUP INC	1.09	-5.97	2 29	4 58
541 Front-End Load	1.200			WELLS FARGO BANK	N/A	N/A	N/A	NA
542 Back-End Load	1 760	28 NVLOX		WELLS FARGO BANK	N/A	N/A	N.A	ΝΆ
543 Institutional Load	1 000		(WFB	WELLS FARGO BANK	ΝΆ	ΚX	N/A	ΚX
544 No Load	1 000	-		OAK ASSOCIATES	N/A	₹Ž	Z/A	₹
545 Institutional Load	0.620			WILSHIRE ASSOCIATES INC	K/N	ΚX	Ψ/N	₹ 2
546 No Load	0.730	_	-	WILSHIRE ASSOCIATES INC	Z X	₹ Ž	Z/A	₹ Ž
547 Front-End Load	1.272		-	WASHINGTON MUTUAL INC	₹	ΝΆ	ΨZ.	¥ N
548 Back-End Load	2.032	119 SQGRX	-	WASHINGTON MUTUAL INC	₹ X	∀	N/A	₹.
549 Institutional Load	0.872	119	WMS	WASHINGTON MUTUAL INC	Z/A	A/A	A/N	ΑX
550 No Load	1.900	32 WPSGX	X WPS	STEWART W.P. & CO INC	N/A	K/N	N/A	N/A
551 No Load	0.800	52 RMGPX	X WIL	WILMINGTON TRUST/RODNEY SQUARE	1.12	-7.84	3.27	3.67
	1.445	94			0.91	-7.29	1.78	3.29
553	1.350	78			0.85	-7.38	1.89	3.25
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Fig. 5.5

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Fig. 5.6

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Fund	7	s by same N	AF company and for same n	nandate (orde	r of preference: lo	west to	tal expenses	(1st no load, 2nd in	stitutional load, 3rc	front-end k
Fund	ਾ ਵਾ									
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Fund L L Cl3s Latest Total Net Pro 10B Load Latest Load Load Latest Load Load Latest Load Load <td></td> <td></td> <td></td> <td></td> <td></td> <td>Pro</td> <td></td> <td></td> <td></td> <td></td>						Pro				
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WHT-Wilm Lg Cap Growth Funds CB341/2000 320.0 G Growth Funds ND Load D.B 52 Wp Steward Growth Funds LCGE Large-Cap Growth Funds CB341/2000 41.4 G Growth Funds ND Load 1.9 32 Wilshire Tgt.LC Gr.Irw LCGE Large-Cap Growth Funds CB341/2000 609.8 G Growth Funds ND Load 0.73 57 Wilshire Tgt.LC Gr.Irw LCGE Large-Cap Growth Funds CB341/2000 3701.8 G Growth Funds ND Load 0.73 57 Wilshire Tgt.LC Gr.Irw LCGE Large-Cap Growth Funds CB341/2000 3701.8 G Growth Funds ND Load 0.22 29 Value Line Lyge Growth LCGE Large-Cap Growth Funds CB341/2000 2008.8 G Growth Funds ND Load 0.22 29 Value Line Lyge Growth LCGE Large-Cap Growth Funds CB341/2000 16387.4 G Growth Funds 0.0371/2000 10.03 0.02 29 49 Value Line Lyge Growth LCGE Large-Cap Growth Funds CB341/2000 18.3 CA Capital Appreciatir Funds 0.03 1.13 1.13) 		
Why Steward Growth Fund LCGE Large-Cap Growth Funds 0331/2000 76.3 Growth Funds Growth Funds 1.9 32 WMA:Growth, A LCGE Large-Cap Growth Funds 0331/2000 370.18 Growth Funds 1.0 cad 1.272 119 37 Wilstine Oak Growth Stock LCGE Large-Cap Growth Funds 0331/2000 370.18 Growth Funds No Load 1.727 119 37 WellsFargor Lg Co Gr, I LCGE Large-Cap Growth Funds 0331/2000 1366.2 Growth Funds No Load 1 2 49 49 Vanguard US Growth LCGE Large-Cap Growth Funds 0331/2000 1366.2 Growth Funds 070 Load 0.22 2 49 49 Value Line Lyee Growth LCGE Large-Cap Growth Funds 0331/2000 785.7 CA Capital Appreciatic No Load 0.77 98 Value Line Lyee Growth LCGE Large-Cap Growth Funds 0331/2000 18.3 CA CA capital Appreciatic No Load 0.77 98 Value Line Fund LCGE Large-Cap Growth Funds 0331/2000 18.3 CA CA capital Appreciatic No Load 1.13 84 Value Line Lyee Growth		- 3 907	Large-Cap Growth Funds	03/31/2000		_	wth Funds	No Load	0.8	52 RM
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TCW Gallier: Sel Eq. (187) and the control of the c	•	3 5	Large-Cap Growth Funds	03/31/2000			ilal Appreciatio	No Load	16.4	56 FMF
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Strong Total Return	0,	HCGE	Large-Cap Growth Funds	03/31/2000		_	wth Funds	Front-End Load	1.49	71 SVL
Stein Roe Growth Stock LCGE Large-Cap Growth Funds 03/31/2000 1158.3 G Growth Funds No Load 0.94 36 SS Research Growth; CCE Large-Cap Growth Funds 03/31/2000 235.4 G Growth Funds Institutional Load 0.72 39 Spectra Fund LCGE Large-Cap Growth Funds 03/31/2000 1098.3 CA Capital Appreciation Load 1.96 191 St Large Cap Growth Funds 03/31/2000 178.2 GI Growth & Income find Load 1.97 71 St Large Cap Growth Funds 03/31/2000 178.3 GI Growth & Income find Load 1.97 71 St Large Cap Growth Funds 03/31/2000 178.3 CI Growth & Income find Load 1.97 71 St Large Cap Growth Funds 03/31/2000 178.3 CI Growth & Income find Load 1.97 71 St Large Cap Growth Funds 03/31/2000 178.3 CI Growth & Income find Load 1.97 71 St Large Cap Growth Funds 03/31/2000 178.3 CI Growth Repetition 1.97 71		ECGE	Large-Cap Growth Funds	03/31/2000		_	wth & Income	No Load	_	268 STF
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Compared to the Compared to	32 SS Research Growth; S	1957 1967	Large-Cap Growth Funds	03/31/2000			wth Funds	Institutional Load	0.72	39 STS
LUGET Large-cap Growth Funds Los/31/2000 final filters / MF selection #1 / MF selection #2 / MF selection #3 / Tracking TR / Possible method to Acselection / 4	33 Spectra Fund	LCG.	Large-Cap Growth Funds	03/31/2000			oral Appreciation	No Load	96.F	
	34 Sit Large Cap Growth	CGE / WE	Large-Cap			٠.	wth & Income ssible method to A		_	

Fig. 6.1

Fig. 6.2

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	X	02/29/2000 03/31/2000 Cum Tot Return	5.80%	1.75%	8 21%	11 80%	9.03%	9 21%	11.03% 9.09%	8.88%	5.13%	6.41%	0.46%	832% 0 0 800 800 800 800 800 800 800 800 800	3.99%	4.55%	-0.97%	5.13%	2.04% 2.04%	7.91%
	BW	01/31/2000 0 02/29/2000 0 Cum C Tot Return T	14.14%	12.27%	3.47%	9.14% 1.88%	2.14%	2 07%	1 83% 1 86%	0.67%	15.62%	3.07%	15.07%	5.13%	16.49%	6.39%	20.54%	828	9.30% 18.44%	4.27%
	B/S	11/30/1999 12/31/1999 01/31/2000 12/31/1999 01/31/2000 02/29/2000 Cum Cum Cum Tot Retum Tot Retum Tot Retum	4.91%	0 17%	-6.83%	-2.54%	-5.56%	-6 67%	-5 86% -5 79%	-4.03%	-2 76%	-3 93%	-2 03%	-5.17% -4.7%	0.58%	-3.70%	-7.15%	0.18%	%55.2- .0 75%	.3 58%
	B	11/30/1999 1 12/31/1999 (Cum Tot Return	21.69%	19.74%	11.62%	6.93% 11.00%	7.08%	7.79%	7.95% 6.37%	4 48%	15.25%	10 38%	17.72%	9.58% 11.39%	12.26%	14.46%	23.89%	12.91%	21 11%	4.41% 11.96% -3
• *	TB		7.37%	10.94%	300%	3.68%	3.28%	4 28%	5 10% 5 18%	3 38%	7.08%	5.13%	8.28%	6.23% 4.88%	6.37%	6.07%	7.08%	4.57%	10.87%	•
₩ ₩ 100%	BS	09/30/1999 10/31/1999 10/31/1999 11/30/1999 Cum Cum Tot Retum Tot Return	8.22%	7 41%	800%	8.63% 8.63%	8.65%	8069	6 29% 5 13%	3.92%	6 23%	6.48%	9.57%	7.65% 12.26%	89.6	7.37%		6.17%		7.79%
₩ ∰ †¥	BR		-1.20%	4.89%	-2 42%	-0.00% -3.79%	-1.98%	-1 69%	-1 35% -1 33%			-1.65%	-0 87%	1.94%	-1.53%	-0.92%	% <i>1</i> 9.0-	-0.99%	-1.45% 37% 27%	
£ 2↓	BQ		0.60%	2.77%	2 54%	2.44% 0.25%	0.78%	1.33%	0.06% 20.00	-0.34%	0.10%	-0.14%	3.16%	1.85%	2.19%	0.55%		-1.28%	88% 3.40%	1.06%
Accounting william tight	ВЬ	06/30/1999 (07/31/1999 (Cum '	-3.49%	.3.93% -3.93%	-3 19%	-3.64% -4.86%	-3.62%	-3.15%	-2.60% -2.73%	-4.99%	-3.28%	-2.98%	-3.18%	-5 38% 1 4 4 %			•		-2 24% A AQ94	•
<u> </u>	BO	05/31/1999 (06/30/1999 (Cum Tot Retum	8.74%	8.01%	7 01%	10.80% 83%	7.37%	7 28%	7 85%	6.16%	10.44%	7.06%		4.95% B.B.E.	12.14%	7.03%			5.03%	6.96%
	NA NA	04/30/1999 05/31/1999 06/30/1999 07/31/1999 05/31/1999 06/30/1999 07/31/1999 08/31/1999 Cum Cum Cum Cum Tot Retum Tot Retum Tot Retum	-2.75%	-6.10% -5.61%	-3.22%	-2.50% -3.50%	-3.34%	-2.95%	-4.70%	-1.58%				-4.83% 3.60%					-2.3U%	
inseri N	"	03/31/1999 (04/30/1999 (Cum (Tot Return ⁽	-0.37%	%/77 - 2.09%	-0.06%	-1.72%	-0.80%	-0.21%	-0.62%	4.93%	-2.29%	-1.97%	-0.64%					•	U.95%	.2.15%
	B1	02/28/1999 (03/31/1999 (Cum Tot Return	4 00%	0.35% 12.15%	5.11%	5.53% 6.21%	3.59%	4 82%	6.46%	86.59	7.25%	4.42%	5.97%	11.16%	5.55 5.55 5.55 5.55 5.55	5.51%	7.89%	6.33%	6.52%	4.26%
a	- ~ m -	4 5 9 0 C B 0 C C C C C C C C C C C C C C C C	- 12 (<u> </u>	र्क	6	. œ	5	8 8	3	2	74	ĸ	3 83	¥ %	2 8	吊	8	8	3 %

Fig. 6.3

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102 Drey/Founders. Growth, F	I CGE	_	Large-Cap G	Growth Funds	_	2000	3602.7	O	Growth Funds	No Load	1.09	117 FRC
103 Delaware US Growth; Inst	TCGE	_	-Cap G	_arge-Cap Growth Funds	_	2000	81.7	O	Growth Funds	Institutional Load	1 56	132 DEL
104 Concert Inv.Gra;1	LCGE	_	-Cap G	_arge-Cap Growth Funds	_	7000	5181.8	Ø	Growth Funds	Front-End Load	0.76	37 CS(
105 Columbia Growth	LCGE	Larg	-Cap G	e-Cap Growth Funds	_	7000	2390.5	O	Growth Funds	No Load	0.65	118 CLN
106 CitiFunds LgCp Gro,A	LCGE	Larg	-Cap G	e-Cap Growth Funds	s 03/31/2000	2000	512.2	O	Growth Funds	Front-End Load	1.05	53 CFL
107 Chase:Equity Growth, Prm	LOGE	Larg	-Cap G	e-Cap Growth Funds	s 03/31/2000	/2000	366 9	O	Growth Funds	Institutional Load	-	35 RITE
108 CG Cap Mkts: Lrg Cap Gro	TCGE	Larg	e-Cap G	Growth Funds	_	72000	2785 7	ග	Growth Funds	No Load	0.68	0 T.G
109 Burnham Inv: Burnham; A	LCGE	Larg	-Cap G	e-Cap Growth Funds	_	/2000	205.9	ত	Growth & Income	Growth & Income f Front-End Load	1.3	55 BUF
110 Bridgeway:Social Resp	LCGE	Larg	e-Cap G	Growth Funds	_	72000	5.7	O	Growth Funds	No Load	1.5	58 BR5
111 Boston 1784 Gro & Inc	LCGE	Larg	-Cap G	e-Cap Growth Funds	_	33/31/2000	636 1	Ō	Growth & Income I No Load	FNo Load	0.89	50 SEC
112 BlackRock:Lg Cp Gr,Inst	LCGE	Larg	-Cap 6	e-Cap Growth Funds	_	2000	1377.8	Ø	Growth Funds	Institutional Load	0.81	60 PN
113 Berger Growth & Income	LCGE	Larg	-Cap G	e-Cap Growth Funds	_	33/31/2000	669.2	<u>ত</u>	Growth & Income I No Load	· I No Load	1.35	173 BEC
114 AXP:New Dimensions;A	LCGE	Larg	-Cap G	e-Cap Growth Funds	_	33/31/2000	18540.4	Ø	Growth Funds	Front-End Load	0.86	
115 AXP. Growth Fund; A	LCGE	Larg	-Cap C	e-Cap Growth Funds	_	03/31/2000	6837.1	ტ	Growth Funds		0.89	17 INID
116 Atlas: Gro & Inc; A	LCGE	Larg	-Cap C	e-Cap Growth Funds	_	03/31/2000	465.5	ō	Growth & Income	_	1.06	
117 Armada.Equity Gro;I	LCGE	Larg	→Cap C	e-Cap Growth Funds	_	03/31/2000	1361.7	ტ	Growth Funds	Institutional Load	0.92	57 AEC
118 Arbor: OVB Cap App;A	LCGE	Larg	³-Cap €	e-Cap Growth Funds	_	33/31/2000	1785	Ø	Growth Funds	Institutional Load	1.02	74 OC
119 Arbor: GoldenOak Gro, Inst	LCGE	Larg	₃-Cab (e-Cap Growth Funds	_	33/31/2000	73.1	O	Growth Funds	Institutional Load	1.08	
120 Amer Cent: AC Ultra; Inv	LCGE	Larg	-Cap (e-Cap Growth Funds	_	33/31/2000	46185.5	O	Growth Funds	No Load	~	42 TWC
121 Amer Cent: AC Growth; Inv		Larg	-Cap (e-Cap Growth Funds	_	33/31/2000	10801.4	O	Growth Funds	No Load	•	92 TW(
122 Alliance Premier Gr,A	LCGE	Larg	3-Cap (e-Cap Growth Funds	_	33/31/2000	5564.4	O	Growth Funds	Front-End Load	1.5	75 APC
123 Allg/Mont&Caldwell Gro;N	LCGE	Larg	³-Cap (e-Cap Growth Funds	_	33/31/2000	1654.2	ტ	Growth Funds	No Load	1.05	32 MC
124 Allg/Chicago Gro & Inc	LCGE	_	³-Cap (_arge-Cap Growth Funds	_	33/31/2000	552.8	ō	Growth & Income I No Load	FNo Load	1.06	
	LCGE	_	9-Cap (_arge-Cap Growth Funds	_	03/31/2000	107.1	<u>ဖ</u>	Growth Funds	Institutional Load	1.1	130 ALG
	H001	_	∌-Cap t	-arge-Cap Growth Funds	_	33/31/2000	297.9	გ	Capital Appreciat	Capital Appreciatic Institutional Load	1.44	177 ALA
127 AIM Eq:Wngarten;Rtl A	100E	_	³-Cap (Large-Cap Growth Funds	_	03/31/2000	10778.9	ტ	Growth Funds	Front-End Load	1.03	124 WE
128 AIM Eq. Charter, Rtl A	LCGE	_	∍-Cap (Large-Cap Growth Funds	_	33/31/2000	6198.2	<u>ত</u>	Growth & Income	Srowth & Income f Front-End Load	1.05	107 CHI
129 AIM Eq. Blue Chip;Rtl A	TCGE		₃-Cap (Large-Cap Growth Funds	_	03/31/2000	2930.5	ō	Growth & Income	Srowth & Income FFront-End Load	1.19	22 ABC
130 Aetna: Growth; I	LCGE	_	3-Cap (Large-Cap Growth Funds	_	03/31/2000	269.0	ტ	Growth Funds	Institutional Load	0.94	142 AEC
131 Advantus Horizon;A	LCGE	_	₃-Cap (_arge-Cap Growth Funds	_	33/31/2000	72.1	Ø	Growth Funds	Front-End Load	1.3	60 ADI
132 Accessor Growth; Adv	LCGE	_	э-Сар (Large-Cap Growth Funds	_	33/31/2000	365.0	Ø	Growth Funds	No Load	0.92	112 AGF
133 ABN AMRO. Growth, Com	TCGE	Larg	e-Cap (e-Cap Growth Funds	_	03/31/2000	218.5	ග	Growth Funds	No Load	1.06	65 RG1
134												
135	pre/ M	F selecti	#	inn #1 / MF selection #2 / MF selection #3 / Tracking TR /	1#2 / MF	selection #3	3 / Tracking	TR /		Possible method to AC selection / 4		• _
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Fig. 6.4

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156 132 DEUIX DEL DELAWARE MGMT CO INC 166 187 CSGWX SBS SSB CITI FUND MANAGEMENT INC 166 18 CLMBX COL CITILANIK N A 1 35 GFLGX CIT CITIBANIK N A 13 55 BURRY BUR BURNHAM ASSET MGMT CORP 13 55 BURRY BUR BURNHAM ASSET MGMT CORP 145 56 BURRY BUR BURNHAM ASSET MGMT CORP 15 56 BURRY BUR BURNHAM ASSET MGMT CORP 16 60 SEGWX FBB BANKBOSTON N A 17 17 BEOOX BER BERGER ASSOCIATES INC 18 17 BEOX BER BERGER ASSOCIATES INC 19 17 ADAX ONE VALLEY BANK 10 17 ACAX ONE VALLEY BANK 10 17 ACAX ONE ONE VALLEY BANK 10 17 ACAX ONE ONE OFFITAL MGMT LP 10 12 AUGHY ALLANCE CAPITAL MGMT 11 130 ALGRY ALL ALLANCE CAPITAL MGMT 10 12 AUGHY ALLANCE CAPITAL MGMT 11 120 ALGRY ALG ALGER FRED MANAGEMENT INC 10 124 WEINX ALG ALGER FRED MANAGEMENT INC 10 12 AGROX ACI ALGER FRED MANAGEMENT INC 12 AGROX ACI ALGER FRED MANAGEMENT INC 13 BADIOX ACI ALGER FRE			
0 76 37 CSGWX SBS SSB CITI FUND MANAGEMENT INC 1 65 18 CLMSX COLLUMBIA FUNDS MGMT CO 1 68 0 TLGUX CT CITIBANK NA 1 68 0 TLGUX SBS SSB CITI FUND MANAGEMENT INC 1 5 68 BRSRX BRG BRIDGEWAY CAPITAL MGMT 0 89 50 SEGWX FBB BANKBOSTON NA 0 80 173 BEOOX BR BRACKROCK INC 1 35 173 BEOOX BR BRACKROCK INC 1 68 34 INNDX IDS BANUTUAL FUND GROUP 0 86 34 INNDX IDS BOS MUTUAL FUND GROUP 0 86 34 INNDX IDS BOS MUTUAL FUND GROUP 0 86 17 INIDX IDS BOS MUTUAL FUND GROUP 1 100 17 ACAAX OVB ONE VALLEY BANK 1 100 17 ACAAX <	2 16% 3 22%	-0 97% 4 72%	7.05%
165 118 CLMBX COL COLUMBIA FUNDS MGMT CO 106 1105 STELGX CIT CITIBANK NA 1 35 RITEK CMB CHASE MANHATTAN BANK 1.3 56 BUSHY BUR BURNHAM ASSET MGMT CORP 1.3 56 BRSRX BRG BRIDGEWAY CAPITAL MGMT 1.3 56 BRSRX BRG BRIDGEWAY CAPITAL MGMT 1.3 56 BRSRX BRG BRIDGEWAY CAPITAL MGMT 1.3 57 173 BEOOX BER BERGER ASSOCIATES INC 1.3 6 173 BEOOX BER BERGER ASSOCIATES INC 1.3 6 17 NIDX IDS MUTUAL FUND GROUP 1.0 6 34 NINDX IDS IDS MUTUAL FUND GROUP 1.0 6 106 ASGK ATL ATLAS ADVISERS INC 1.0 74 OCAAX OVB IDS MUTUAL FUND GROUP 1.0 74 OCAAX OVB ONE VALLEY BANK 1.0 74 ALGAGA TULIANCE CAPITAL MGMT IP 1.1 130 ALGRX ALG ALGER FRED MANAGEMENT INC 1.1 130 ALGRX ALG ALGER FRED MANAGEMENT INC 1.1 130 ALGRX ALG ALGER FRED MANAGEMENT INC 1.1 13 ALGRX ALG ALGER FRED MANAGEMENT INC 1.1 12 22 ABCAX AIM AIM ADVISORS INC 1.1 12 AGROX ACS ACCESSOR CAPITAL MGMT IP 1.1 12 CABOX ADS ACCESSOR CAPITAL MGMT INC 1.1 12 CABOX ADS ACCESSOR CAPITAL MGMT INC 1.1 12 CABOX ACS ACCESSOR CAPITAL MGMT INC 1.2 AGROX ACS ACCESSOR CAPITAL MGMT INC 1.3 60 ADIOX ADS ACCESSOR CAPITAL MGMT INC 1.4 17 ALGRX ALG ABIN AMRO ASSET MGMT INC 1.5 6 BE RGTCX ABIN ABIN AMRO ASSET MGMT INC 1.5 6 BE RGTCX ABIN ABIN AMRO ASSET MGMT INC 1.5 6 BE RGTCX ABIN ABIN AMRO ASSET MGMT INC 1.5 7 10 10 10 10 10 10 10 10 10 10 10 10 10	4 33% 1.94%	2.51% 3.97%	3 69%
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1 35 RITEX CMB CHASE MANHATTAN BANK 1 35 RITEX CMB SSB CITI FUND MANAGEMENT INC 1 35 68 BRSRX BRC BRIDGEWAY CAPITAL MGMT 1 36 BRSRX BRC BRIDGEWAY CAPITAL MGMT 0 89 60 PNAPX BILK BLACKROCK INC 1 35 173 BEOOX BER BANKBOSTON N.A. 0 81 10 PNAPX BILK BLACKROCK INC 1 35 173 BEOOX BER BERGER ASSOCIATES INC 0 92 37 MUDX IDS IDS MUTUAL FUND GROUP 1 106 106 ASGIK ATL ATLAS ADVISERS INC 0 92 57 AEGIX ATL ATLAS ADVISERS INC 0 92 57 AEGIX ATL ATLAS ADVISERS INC 0 102 74 OCAAX OVB 0 1 108 71 GDGAX CTZ CITIZENS COMMERCIAL & SAVINGS 1 1 092 TWCCX ACI AMERICAN CENTURY INV INC 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3 52% 2 45%	1 06% 3 22%	1 58%
1.3 56 BURHX BUR BURHAM ASSET MGMT CORP 1.3 66 BURHX BUR BURHAM ASSET MGMT CORP 1.5 68 BRSRX BRG BRIDGEWAY CAPITAL MGMT 0.89 50 SEGWX FBB BANKBOSTON N.A. 0.89 50 SEGWX FBB BANKBOSTON N.A. 0.89 17 IMIDX IDS IDS MUTUAL FUND GROUP IDS	3.17% 2.65%	1.12% 2.46%	4.60%
1.3 55 BURHX BUR BURNHAM ASSET MGMT CORP 1.5 58 BRSRX BRG BRIDGEWAY CAPITAL MGMT 0.89 50 SEGWX FBB BANKBOSTON N.A. 0.81 60 PNAPX BLK BLACKROCK INC 0.86 34 INNDX IDS IDS MUTUAL FUND GROUP 0.89 17 INIDX IDS IDS MUTUAL FUND GROUP 1.06 106 ASGIX ATL ATLAS ADVISERS INC 0.92 57 AEGIX NCC NATIONAL CITY BANK 1.02 74 OCAAX OVB ONE VALLEY BANK N.A. 1.08 77 GDGAX CITZ CITZENS COMMERCIAL & SAVINGS 1.10 74 OCAAX OVB CITZENS COMMERCIAL & SAVINGS 1.10 75 APGAX ACI AMERICAN CENTURY INV INC 1.5 75 APGAX ACI ALIANCE CAPITAL MGMT LP 1.10 32 MCGFX CIT CHICAGO TRUST COMPANY 1.11 130 ALGRX ALG ALGER FRED MANAGEMENT INC 1.14 177 ALARX ALG ALGER FRED MANAGEMENT INC 1.19 22 ABCAX AIM ADVISORS INC 1.10 12 AEGRX AETNA LIFE INS & ANNTY 1.3 60 ADIOX ADS ACCESSOR CAPITAL MGMT LP 1.10 65 RGTCX ABN AMRO ASSET MGMT INC 1.10 66 RGTCX ABN ABN AMRO ASSET MGMT INC 1.11 67 AEGRX AETNA AMRO ASSET MGMT INC 1.12 AGROX ACI ABN AMRO ASSET MGMT INC 1.13 66 RGTCX ABN AMRO ASSET MGMT INC 1.10 67 AGRA ALG ABN AMRO ASSET MGMT INC 1.10 67 AGRA AND ADVISORS INC 1.11 67 AGRA AND ADVISORS INC 1.12 AGROX ACI ABN AMRO ASSET MGMT INC 1.13 66 RGTCX ABN ABN AMRO ASSET MGMT INC 1.14 A TACK ABN AMRO ASSET MGMT INC 1.15 AGROX ACI ABN AMRO ASSET MGMT INC 1.16 AGROX ACI ABN AMRO ASSET MGMT INC 1.17 ALARY AGRA ABN AMRO ASSET MGMT INC 1.18 AGROX ACI ABN AMRO ASSET MGMT INC 1.19 AGROX ACI ABN AMRO ASSET MGMT INC 1.10 ACID ACID AGRA AGRA ABN AMRO ASSET MGMT INC 1.10 ACID ACID AGRA AGRA ABN AMRO ASSET MGMT INC 1.10 ACID ACID ACID ACID ACID AGRA AGRA AGRA AGRA AGRA AGRA AGRA AGR	3.63% 2.82%	1.61% 3.82%	4.66%
1.5 58 BRSRX FBB BANKBOSTON N.A. 0.89 50 SEGWX FBB BANKBOSTON N.A. 0.81 60 PNAPX BLK BLACKROCK INC 1.35 173 BEOOX BER BERGER ASSOCIATES INC 0.88 34 INNDX IDS IDS MUTUAL FUND GROUP 0.89 17 INIDX IDS IDS MUTUAL FUND GROUP 1.06 106 ASGIX ATL ATLAS ADVISERS INC 0.92 57 AGOIX OVB ONE VALLEY BANK N.A. 1.08 71 GDGAX CTZ CITIZENS COMMERCIAL & SAVINGS 1 42 TAVCUX ACI AMERICAN CENTURY INV INC 1 92 TAVCOX ACI AMERICAN CENTURY INV INC 1 92 TAVCOX ACI AMERICAN CENTURY INV INC 1 105 32 MCGFX CTT CHICAGO TRUST COMPANY 1 105 22 CHTIX CTT CHICAGO TRUST COMPANY 1 106 29 CHTIX AIM ADVISORS INC 1 14 4 177 ALLAN AIM ADVISORS INC 1 10 22 ABCAX ALI AETNA LIFE INS & ANNITY 1 10 22 ABCAX ALI AETNA LIFE INS & ANNITY 1 11 AGO ADIOX ADS ADVANTUS CAPITAL MGMT LP 1 10 22 ABCAX AND AGO ACI ACT AETNA LIFE INS & ANNITY 1 10 22 ABCAX AND ADVISORS INC 1 10 22 ABCAX AND ADVISORS INC 1 10 22 ABCAX AND ADVISORS INC 1 11 AGORD ACI AETNA LIFE INS & ANNITY 1 10 22 ABCAX AND ADVISORS INC 1 24 ABCAX AND ADVISORS INC 1 25 ABCAX AND ADVISORS INC 1 26 ABCAX AND ADVISORS INC 1 27 ABCAX AND ADVISORS INC 1 28 ABCAX AND ADVISORS INC 1 29 ABCAX AND	2 35% 1.15%	2.25% 2.74%	171%
0.89 60 SEGWX FBB BANKBOSTON N.A. 0.81 60 PNAPX BLK BLACKROCK INC 1.35 173 BEOOX BER BERGER ASSOCIATES INC 0.86 34 INNDX IDS IDS MUTUAL FUND GROUP 0.89 17 INIDX IDS IDS MUTUAL FUND GROUP 0.89 17 INIDX IDS IDS MUTUAL FUND GROUP 0.92 74 AEQIX NCC NATIONAL CITY BANK 1.02 74 COCAX OVB NET ATLAS ADVISERS INC 1.02 74 COCAX OVB NET CALLEY BANK N.A. 1.08 71 GDGAX CTZ CITIZENS COMMERCIAL & SAVINGS 1.02 74 COCAX CTZ CITIZENS COMMERCIAL & SAVINGS 1.03 71 GDGAX CTZ AMERICAN CENTURY INV INC 1.05 27 TWCGX ACI AMERICAN CENTURY INV INC 1.05 32 MCGFX CTT CHICAGO TRUST COMPANY 1.05 32 MCGFX CTT CHICAGO TRUST COMPANY 1.06 29 CHTIX CTT CHICAGO TRUST COMPANY 1.07 ALARX ALG ALGER FRED MANAGEMENT INC 1.08 124 WEINX AIM AIM ADVISORS INC 1.09 112 AGGRX AET AETWA LIFE INS & ANINTY 1.19 22 ABCAX AIM AIM ADVISORS INC 1.19 24 WEINX AIM AIM ADVISORS INC 1.19 25 ABCAX AIM AIM ADVISORS INC 1.19 24 WEINX AIM AIM ADVISORS INC 1.19 25 ABCAX AIM AIM ADVISORS INC 1.19 24 WEINX AIM AIM ADVISORS INC 1.19 24 ABCAX AIM AI		1.46% 0.99%	3.29%
0.81 60 PNAPX BLK BLACKROCK INC 1.35 173 BEOOX BER BERGER ASSOCIATES INC 0.86 34 INNDX IDS IDS MUTUAL FUND GROUP 0.89 17 INIDX IDS IDS MUTUAL FUND GROUP 1.06 106 ASGIX ATL ATLAS ADVISERS INC 0.92 57 AEQIX NCC NATIONAL CITY BANK 1.02 74 OCAAX OVB ONE VALLEY BANK 1.03 71 GDGAX CTZ CITIZENS COMMERCIAL & SAVINGS 1 42 TWCUX ACI AMERICAN CENTURY INV INC 1 575 APGAX ALL ALLIANUE CAPITAL MGMT LP 1.06 29 CHTIX CTT CHICAGO TRUST COMPANY 1.06 29 CHTIX CTT CHICAGO TRUST COMPANY 1.06 29 CHTIX ALG ALGER FRED MANAGEMENT INC 1.44 177 ALARX ALG ALGER FRED MANAGEMENT INC 1.05 124 WEINX AIM AIM ADVISORS INC 1.06 107 CHTRX AIM AIM ADVISORS INC 1.07 CHTRX AIM AIM ADVISORS INC 1.08 20 ABCAX AIM AM ADVISORS INC 1.09 124 AEGRX AET AETNA LIFE INS & ANNITY 1.00 10.94 142 AEGRX AET AETNA LIFE INS & ANNITY 1.00 10.92 112 AGROX ACS ACCESSOR CAPITAL MGMT INC 1.00 10.94 142 AEGRX ABN ABN ABN ABN ASSET MGMT INC 1.00 10.94 142 AEGRX ABN ABN ABN ABN ABN INC 1.00 10.94 142 AEGRX ABN ABN ABN ABN ABN INC 1.00 10.94 142 AEGRX ABN ABN ABN ABN ABN INC 1.00 10.94 142 AEGRX ABN ABN ABN ABN ABN INC 1.00 10.94 142 AEGRX ABN ABN ABN ABN ABN INC 1.00 10.94 142 AEGRX ABN ABN ABN ABN ABN INC 1.00 10.94 142 AEGRX ABN ABN ABN ABN ABN INC 1.00 10.94 142 AEGRX ABN ABN ABN ABN ABN ABN INC 1.00 10.94 142 AEGRX ABN ABN ABN ABN ABN ABN INC 1.00 10.94 142 AEGRX ABN ABN ABN ABN ABN ABN INC 1.00 10.94 142 AEGRX ABN ABN ABN ABN ABN ABN INC 1.00 10.94 142 AEGRX ABN ABN ABN ABN ABN ABN INC 1.00 10.94 142 AEGRX ABN ABN ABN ABN ABN ABN INC 1.00 10.94 142 AEGRX ABN ABN ABN ABN ABN ABN INC 1.00 10.95 112 AGN ABN ABN ABN ABN ABN ABN INC 1.00 10.95 112 AGN ABN ABN ABN ABN ABN ABN ABN ABN ABN AB	4 52% 2.36%	2.82% 4.29%	3 54%
1.35 173 BEOOX BER BERGER ASSOCIATES INC 0.86 34 INNDX IDS IDS MUTUAL FUND GROUP 0.89 17 INIDX IDS IDS MUTUAL FUND GROUP 1.06 106 ASGIX ATL ATLAS ADVISERS INC 0.92 57 AEGIX NC NATIONAL CITY BANK 1.02 74 OCAAX OVB ONE VALLEY BANK NA. 1.08 71 GDGAX CTZ CITIZENS COMMERCIAL & SAVINGS 1 42 TWCCX ACI AMERICAN CENTURY INV INC 1 57 APGAX ALL ALLIANCE CAPITAL MGMT LP 1.06 29 CHTX CTT CHICAGO TRUST COMPANY 1.06 29 CHTX CTT CHICAGO TRUST COMPANY 1.06 29 CHTX ALGER FRED MANAGEMENT INC 1.11 130 ALGRX ALG ALGER FRED MANAGEMENT INC 1.05 107 CHTRX AIM ADVISORS INC 1.05 107 CHTRX AIM AM		201% 2.51%	4.19%
0.86 34 INNDX IDS IDS MUTUAL FUND GROUP 0.89 17 INIDX IDS IDS MUTUAL FUND GROUP 1.06 106 ASGIX ATL ATLAS ADVISERS INC 0.92 57 AEGIX NCC NATIONAL CITY BANK 1.02 74 OCAAX OVB ONE VALLEY BANK N.A. 1.08 77 GDGAX CTZ CITIZENS COMMERCIAL & SAVINGS 1 42 TWCUX ACI AMERICAN CENTURY INV INC 1 52 TWCGX ACI AMERICAN CENTURY INV INC 1 52 APGAX ALL ALLIANCE CAPITAL MGMT LP 1.06 29 CHTX CTT CHICAGO TRUST COMPANY 1.06 29 CHTX CTT CHICAGO TRUST COMPANY 1.11 130 ALGRX ALG ALGER FRED MANAGEMENT INC 1.03 124 WEINX AIM ADVISORS INC 1.05 107 CHTRX AIM ADVISORS INC 1.05 107 CHTRX AIM ADVISORS INC 1.06 20 ABOOX ACI ADVANTUS CAPITAL MGMT 1.07 ALGER AET ADVANTUS CAPITAL MGMT 1.08 60 ADIOX ADS ACCESSOR CAPITAL MGMT IP 1.06 65 RGTCX ABN ABNAMRO ASSET MGMT INC	2.67% 1.86%	3.42% 2.39%	2 94%
1.06 106 ASGIX ATL ATLAS ADVISERS INC 1.02 74 OCAAX OVB ONE VALLEY BANK 1.02 74 OCAAX OVB ONE VALLEY BANK N.A. 1.08 71 GDGAX CTZ CITIZENS COMMERCIAL & SAVINGS 1 42 TWCUX ACI AMERICAN CENTURY INV INC 1.5 75 APGAX ALL ALLIANCE CAPITAL MGMT L.P 1.06 29 CHTX CTT CHICAGO TRUST COMPANY 1.06 29 CHTX CTT CHICAGO TRUST COMPANY 1.06 29 CHTX ALGER FRED MANAGEMENT INC 1.11 130 ALGRX ALGER FRED MANAGEMENT INC 1.12 124 WEINX AIM ADVISORS INC 1.19 22 ABCAX AIM ADVISORS INC 1.10 122 AGCRX ACI AETNA LIFE INS & ANNTY 1.3 60 ADIOX ADS ADVANTUS CAPITAL MGMT INC 1.06 65 RGTCX ABN AMRO ASSET MGMT INC	3.67% 3.03%	3 08% 2.86%	4.69%
1.06 106 ASGK ATL ATLAS ADVISERS INC 0 92 57 AEQIX NCC NATIONAL CITY BANK 1.02 74 OCAAX OVB ONE VALLEY BANK N.A. 1.08 71 GDGAX CTZ CITIZENS COMMERCIAL & SAVINGS 1 42 TWCUX ACI AMERICAN CENTURY INV INC 1.5 75 APGAX ALL ALLIANCE CAPITAL MGMT L.P 1.06 29 CHTX CTT CHICAGO TRUST COMPANY 1.06 29 CHTX CTT CHICAGO TRUST COMPANY 1.11 130 ALGRX ALG ALGER FRED MANAGEMENT INC 1.14 177 ALARX ALG ALGER FRED MANAGEMENT INC 1.19 124 WEINX AIM ADVISORS INC 1.19 22 ABCAX AIM ADVISORS INC 1.19 22 ABCAX AIM ADVISORS INC 1.19 124 AEGRX AET AETNA LIFE INS & ANNTY 1.3 60 ADIOX ADS ADVANTUS CAPITAL MGMT L.P 1.10 65 RGTCX ABN ABN AMRO ASSET MGMT INC 1.10 65 RGTCX ABN ABN AMRO ASSET MGMT INC	4 58% 4.15%	2.43% 1.57%	7.60%
1.02 74 OCAAX OVB ONE VALLEY BANK 1.02 74 OCAAX OVB ONE VALLEY BANK N.A. 1.08 71 GDGAX CTZ CITIZENS COMMERCIAL & SAVINGS 1 42 TWCUX ACI AMERICAN CENTURY INV INC 1.5 75 APGAX ALL ALLIANCE CAPITAL MGMT LP 1.06 29 CHTX CTT CHICAGO TRUST COMPANY 1.06 29 CHTX CTT CHICAGO TRUST COMPANY 1.11 130 ALGRX ALG ALGER FRED MANAGEMENT INC 1.14 177 ALARX ALG ALGER FRED MANAGEMENT INC 1.19 124 WEINX AIM ADVISORS INC 1.19 22 ABCAX ABM ADVISORS INC 1.10 6 66 RGTCX ABN ABNANTUS CAPITAL MGMT LP 1.10 6 65 RGTCX ABN ABNAMRO ASSET MGMT INC			4.33%
1.02 74 OCAAX OVB ONE VALLEY BANK N.A. 1.08 71 GDGAX CTZ CITIZENS COMMERCIAL & SAVINGS 1 42 TAVCUX ACI AMERICAN CENTURY INV INC 1.5 75 APGAX ALL ALLIANCE CAPITAL MGMT L.P 1.06 32 MCGFX CTT CHICAGO TRUST COMPANY 1.06 29 CHTX CTT CHICAGO TRUST COMPANY 1.11 130 ALGRX ALG ALGER FRED MANAGEMENT INC 1.14 177 ALARX ALG ALGER FRED MANAGEMENT INC 1.19 124 WEINX AIM ADVISORS INC 1.19 22 ABCAX ABM ADVISORS INC 1.10 6 66 RGTCX ABN AMRO ASSET MGMT INC 1.10 6 65 RGTCX ABN ABN AMRO ASSET MGMT INC			2.98%
1.08 71 GDGAX CTZ CITIZENS COMMERCIAL & SAVINGS 1 42 TWCUX ACI AMERICAN CENTURY INV INC 1.5 75 APGAX ALL ALLIANCE CAPITAL MGMT LP 1.05 32 MCGFX CTT CHICAGO TRUST COMPANY 1.06 29 CHTX CTT CHICAGO TRUST COMPANY 1.11 130 ALGRX ALG ALGER FRED MANAGEMENT INC 1.44 177 ALARX ALG ALGER FRED MANAGEMENT INC 1.05 107 CHTRX AIM ADVISORS INC 1.19 22 ABCAX AIM ADVISORS INC 1.19 22 ABCAX AIM ADVISORS INC 1.19 22 ABCAX AIM ADVISORS INC 1.10 6 107 CHTRX AIM ADVISORS INC 1.10 12 AGGRX ACS ACCESSOR CAPITAL MGMT LP 1.10 6 65 RGTCX ABN ABNRO ASSET MGMT INC			6.43%
1 42 TWCUX ACI AMERICAN CENTURY INV INC 1.5 75 APGAX ALL ALLIANCE CAPITAL MGMT LP 1.05 32 MCGFX CTT CHICAGO TRUST COMPANY 1.06 29 CHTX CTT CHICAGO TRUST COMPANY 1.11 130 ALGRX ALG ALGER FRED MANAGEMENT INC 1.44 177 ALARX ALG ALGER FRED MANAGEMENT INC 1.03 124 WEINX AIM ADVISORS INC 1.19 22 ABCAX ABT ABT ADVISORS INC 1.19 22 AGCRX AST ABT ADVISORS INC 1.10 6 65 RGTCX ABN ABN AMRO ASSET MGMT INC 1.06 65 RGTCX ABN ABN AMRO ASSET MGMT INC			4 13%
1.5 TAPGAX ACI AMERICAN CENTURY INV INC 1.5 75 APGAX ALL ALLIANCE CAPITAL MGMT LP 1.05 32 MCGFX CTT CHICAGO TRUST COMPANY 1.06 29 CHTIX CTT CHICAGO TRUST COMPANY 1.11 130 ALGRX ALG ALGER FRED MANAGEMENT INC 1.14 177 ALARX ALG ALGER FRED MANAGEMENT INC 1.03 124 WEINX AIM ADVISORS INC 1.19 22 ABCAX AIM ADVISORS INC 1.10 6 65 RGTCX ABN ABN AMRO ASSET MGMT INC 1.06 65 RGTCX ABN ABN AMRO ASSET MGMT INC			9 82%
1.5 75 APGAX ALL ALLIANCE CAPITAL MGMT LP 1.05 32 MCGFX CTT CHICAGO TRUST COMPANY 1.06 29 CHTIX CTT CHICAGO TRUST COMPANY 1.11 130 ALGRX ALG ALGER FRED MANAGEMENT INC 1.44 177 ALARX ALG ALGER FRED MANAGEMENT INC 1.03 124 WEINX AIM ADVISORS INC 1.05 107 CHTRX AIM ADVISORS INC 1.19 22 ABCAX AIM ADVISORS INC 1.19 22 ABCAX AIM ADVISORS INC 1.19 22 ABCAX AND ADVISORS INC 1.19 22 ABCAX AND ADVISORS INC 1.19 22 ABCAX AND ADVISORS INC 1.10 6 65 RGTCX ABN AMRO ASSET MGMT INC 1.06 65 RGTCX ABN AMRO ASSET MGMT INC			4 70%
1 05 32 MCGFX CTT CHICAGO TRUST COMPANY 1.06 29 CHTK CTT CHICAGO TRUST COMPANY 1.11 130 ALGRX ALG ALGER FRED MANAGEMENT INC 1.44 177 ALARX ALG ALGER FRED MANAGEMENT INC 1.03 124 WEINX AIM ADVISORS INC 1.05 107 CHTRX AIM ADVISORS INC 1.19 22 ABCAX AIM ADVISORS INC 1.19 22 ABCAX AIM ADVISORS INC 1.19 22 ABCAX AET ADVISORS INC 1.19 22 ABCAX AET ADVISORS INC 1.10 6 65 RGTCX ABN AMRO ASSET MGMT INC 1.06 65 RGTCX ABN AMRO ASSET MGMT INC			7.61%
1.06 29 CHTX CTT CHICAGO TRUST COMPANY 1.11 130 ALGRX ALG ALGER FRED MANAGEMENT INC 1.44 177 ALARX ALG ALGER FRED MANAGEMENT INC 1.03 124 WEINX AIM AIM ADVISORS INC 1.05 107 CHTRX AIM AM ADVISORS INC 1.19 22 ABCAX AIM ADVISORS INC 1.19 22 ABCAX AET ADVISORS INC 1.19 22 ABCAX AET ADVISORS INC 1.19 65 ADVIX ADS ADVANTUS CAPITAL MGMT 1.2 60 ADVIX ADS ADVANTUS CAPITAL MGMT LP 1.06 65 RGTCX ABN AMRO ASSET MGMT INC			5.95%
1.11 130 ALGRX ALG ALGER FRED MANAGEMENT INC 1.44 177 ALARX ALG ALGER FRED MANAGEMENT INC 1.03 124 WEINX AIM AIM ADVISORS INC 1.05 107 CHTRX AIM AM ADVISORS INC 1.19 22 ABCAX AIM ADVISORS INC 1.10 60.94 142 AEGRX AET AETNA LIFE INS & ANNTY 1.21 60 ADIOX ADS ADVANTUS CAPITAL MGMT 1.06 65 RGTCX ABN AMRO ASSET MGMT INC			3.70%
1.44 177 ALARY ALG ALGER FRED MANAGEMENT INC 1.03 124 WEINX AIM ADVISORS INC 1.05 107 CHTRX AIM AM ADVISORS INC 1.19 22 ABCAX AIM AM ADVISORS INC 1.19 22 ABCAX AET AETNA LIFE INS & ANNTY 1.3 60 ADIOX ADS ADVANTUS CAPITAL MGMT 1.3 60 ADIOX ACS ACCESSOR CAPITAL MGMT LP 1.06 65 RGTCX ABN AMRO ASSET MGMT INC			9.81%
1.03 124 WEINX AIM AIM ADVISORS INC 1.05 107 CHTRX AIM ADVISORS INC 1.19 22 ABCAX AIM ADVISORS INC 0.94 142 AEGRX AET AETNA LIFE INS & ANNITY 1.3 60 ADIOX ADS ADVANTUS CAPITAL MGMT 1.06 65 RGTCX ABN ABN AMRO ASSET MGMT INC			14.21%
1.05 107 CHTRX AIM AIM ADVISORS INC 1.19 22 ABCAX AIM AIM ADVISORS INC 0.94 142 AEGRX AET AETNA LIFE INS & ANNTY 1.3 60 ADIOX ADS ADVANTUS CAPITAL MGMT 0.92 112 AGROX ACS ACCESSOR CAPITAL MGMT LP 1.06 65 RGTCX ABN ABN AMRO ASSET MGMT INC			6.23%
1.19 22 ABCAX AIM AIM ADVISORS INC 0.94 142 AEGRX AET AETNA LIFE INS & ANNTY 1.3 60 ADIOX ADS ADVANTUS CAPITAL MGMT 0.92 112 AGROX ACS ACCESSOR CAPITAL MGMT LP 1.06 65 RGTCX ABN ABN AMRO ASSET MGMT INC			4.25%
0.94 142 AEGRX AET AETNA LIFE INS & ANNTY 1.3 60 ADIOX ADS ADVANTUS CAPITAL MGMT 0.92 112 AGROX ACS ACCESSOR CAPITAL MGMT LP 1.06 65 RGTCX ABN ABN AMRO ASSET MGMT INC			2.76%
1.3 60 ADIOX ADS ADVANTUS CAPITAL MGMT 0.92 112 AGROX ACS ACCESSOR CAPITAL MGMT LP 1.06 65 RGTCX ABN ABN AMRO ASSET MGMT INC			5.90%
D.92 112 AGROX ACS ACCESSOR CAPITAL MGMT LP 1.06 65 RGTCX ABN ABN AMRO ASSET MGMT INC	3.52% 2.04%	0.72% 2.10%	4.48%
1.06 65 RGTCX ABN ABN AMRO ASSET MGMT INC	3.61% 2.98%	3.77% 4.31%	3.05%
	4 85% 2.39%	2 52% 3.59%	4.14%
the CA and the state of the sta	3.63% 2.94%	2.31% 3.12%	\$ 1.0 \$ 1.0
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Fig. 6.5

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0.0452 0.0256 0.0284 0.0284 0.0683 0.0445 0.0256 0.0231 0.0239 0.0249 0.0448 0.0257 0.0139 0.0234 0.0239 0.0234 0.0239 0.0249 0.0248 0.0257 0.0139 0.0234 0.0239 0.0239 0.0249 0.0378 0.0046 0.0046 0.0145 0.01543 0.0158 0.0158 0.0448 0.00416 0.0044 0.0042 0.0141 0.0141 0.0143 0.0143 0.0143 0.0043 0.01417 0.0141 0.0122 0.0141 0.0223 0.023 0.0243 0.0501 0.0141 0.023 0.0128 0.023 0.023 0.0243 0.0241 0.0137 0.0243 0.0243 0.0243 0.0243 0.025 0.0243 0.0241 0.0137 0.0243 0.0243 0.0243 0.0243 0.0242 0.0137 0.0243 0.0243 0.0243 0.0243 0.0244 0.0258 0.0244 0.0224 0.0243 0.0244 0.0258 0.0441 0.0286 0.0242 0.0244 0.0224 0.0244 0.0258 0.0441 0.0287 0.0268 0.0244 0.0278 0.0241 0.0242 0.0287 0.0241 0.0244 0.0278 0.0244 0.0278 0.0241 0.0285 0.0423 0.0244 0.0278 0.0244 0.0278 0.0241 0.0266 0.0242 0.0244 0.0278 0.0244 0.0278 0.0241 0.0259 0.0411 0.0256 0.0244 0.0278 0.0241 0.0251 0.0251 0.0244 0.0274 0.0244 0.0278 0.0241 0.0265 0.0244 0.0274 0.0244 0.0278 0.0241 0.0266 0.0244 0.0274 0.0244 0.0278 0.0244 0.0278 0.0241 0.0267 0.0258 0.0447 0.0254 0.0254 0.0251 0.037 0.0254 0.0254 0.0254 0.0254 0.0254 0.0256 0.0257 0.037 0.0254 0.025	110 0.0172	0.0437	0.0428	0.0146	0.0099	0.0329	0.0439	
0.0267 0.039 0.0201 0.049 0.0204 0.048 0.0267 0.0267 0.0268 0.0468 0.0468 0.0368 0.0369 0.0267 0.0379 0.0267 0.0368 0.0368 0.0468 0.0368 0.0368 0.0468 0.0368 0.0368 0.0468 0.0368 0.0368 0.0368 0.0368 0.0468 0.0244 0.0379 0.0248 0.0379 0.0248 0.0379 0.0248 0.0379 0.0248 0.0368 0.0448 0.0243 0.0248 0.0448 0.0224 0.0248 0.0479 0.0268 0.0448 0.0224 0.0228 0.0248 0.0248 0.0248 0.0248 0.0248 0.0248 0.0248 0.0268 0.0479 0.0268 0.0479 0.03	111 0.0143	0.0452	0.0236	0.0282	0 0429	0 0354	0.0693	_
0.0367 0.0166 0.0342 0.0239 0.0234 0.0379 0.0367 0.0368 0.0468 0	112 0.006	0.0437	0.039	0.0201	0.0251	0 0419	0.0448	_
0.0367 0.0308 0.0268 0.0469 0.0469 0.048 0.0243 0.0167 0.078 0.0623 0.0468 0.0416 0.0243 0.0167 0.078 0.0623 0.0243 0.0165 0.0248 0.0167 0.058 0.0481 0.0243 0.0165 0.0169 0.0293 0.0298 0.0418 0.0243 0.0165 0.0268 0.0249 0.0299 0.0241 0.01725 0.0268 0.0241 0.0252 0.0418 0.0244 0.0321 0.0222 0.0283 0.022 0.043 0.0267 0.0342 0.0324 0.0328 0.028 0.0267 0.047 0.0379 0.0364 0.0378 0.0316 0.0376 0.0367 0.0379 0.0167 0.0378 0.0384 0.0384 0.0384 0.0384 0.0384 0.0384 0.0384 0.0384 0.0384 0.0384 0.0384 0.0384 0.0384 0.0384 0.0384 0.0384 0.0384 0.0381 0.0485 0.0481 0.0381 0.0481 0.0381 0.0481 0.0381 0.0481 0.0381 0.0481 0.0381 0	113 -0.0215	0.0267	0.0186	0.0342	0.0239	0.0294	0.0379	
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0.0449 0.022 0.0228 0.043 0.055 0.043 0.055 0.043 0.055 0.044 0.055 0.0128 0.025 0.0413 0.055 0.055 0.044 0.0529 0.0282 0.0282 0.043 0.055 0.05	117 0.0203	0.0243	0.0165	0.0189	0 0293	0 0298	0.0418	
0.0187 0.0129 0.0128 0.0252 0.0413 0.0267 0.0444 0.0321 0.0283 0.027 0.0376 0.0377 0.0376 0.0377 0.0376 0.0377 0.0377 0.0377 0.0377 0.0377 0.0377 0.0377 0.0377 0.0377 0.0377 0.0377 0.0377 0.0377 0.0377 0.0377 0.0376 0.0377 0.0376 0.0377 0.0376 0.0377 0.0376 0.0377 0.0376 0.0377 0.0376 0.0377 0.0376 0.0377 0.0376 0.0377 0.0376 0.0377 0.0377 0.0376 0.0377 0.0376 0.0377 0.0377 0.0376 0.0377 0.0378 0.0377 0.0378 0.0377 0.0378 0.0377 0.0378 0.0377 0.0378 0.0377 0.0378 0.0377 0.0378 0.0377 0.0378 0.0378 0.0377 0.0378 0.0378 0.0377 0.0378 0.0378 0.0377 0.0378 0.	118 -0.0162	0.0449	0.02	0.0268	0.0401	0 0643	0 0735	
0.0444 0.0321 0.0283 0.02 0.0982 0.1067 0.0341 0.0378 0.0376 0.0508 0.0341 0.0378 0.0376 0.0508 0.0341 0.0382 0.041 0.0567 0.057 0.0508 0.0341 0.0382 0.041 0.0567 0.0567 0.0568 0.036 0.0364 0.0348 0.0382 0.0585 0.0439 0.0379 0.0167 0.0278 0.0288 0.037 0.0287 0.0608 0.0265 0.0607 0.028 0.0381 0.0387 0.0608 0.0265 0.0677 0.028 0.0391 0.0528 0.0365 0.0324 0.0351 0.0284 0.0351 0.0285 0.0365 0.0425 0.0324 0.0351 0.0286 0.0287 0.0365 0.0425 0.0324 0.0351 0.0286 0.0287 0.0365 0.0417 0.024 0.0313 0.059 0.0651 0.0365 0.0305 0.0305 0.0305 0.0305 0.0365 0.0305 0.0305 0.0305 0.0305 0.0385 0.0386 0.0333 =AVERAGE(P12.P133) =AVERAGE(R12.R133) =AV	119 0.0054	0.0187	0.0229	0.0128	0 0252	0 0413	0.0367	
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0.036 0.0364 0.0382 0.0395 0.0339 0.0339 0.0339 0.0339 0.0339 0.0339 0.0378 0.0378 0.0379 0.0379 0.0278 0.0382 0.037 0.0377 0.0287 0.02	122 0.0273	0.0311	0.0382	0.041	0.0567	0 0761	0 0556	
0.0379 0.0157 0.0278 0.0288 0.037 0.0287 0.0287 0.0288 0.0618 0.0378 0.0288 0.037 0.0287 0.0288 0.0037 0.0287 0.0288 0.0037 0.0287 0.0287 0.0287 0.0297 0.0319 0.0421 0.1421 0.1382 0.0257 0.026 0.0319 0.0253 0.0327 0.0351 0.0351 0.0351 0.0352 0.0327 0.0351 0.0351 0.0352 0.0328 0.0321 0.0321 0.0321 0.0328 0.0321 0.0328 0.0324 0.0313 0.0328 0.0314 0.0387 0.0313 0.0351 0.0359 0.0328 0.0321 0.0331 0.0331 0.0351 0.0359 0.0313 0.0351 0.0359 0.0313 0.0351 0.0359 0.0414 0.0561 0.0561 0.0359 0.0325 0.0352 0.0352 0.0352 0.0352 0.0352 0.0352 0.0352 0.0352 0.0352 0.0353 0.0414 0.0565 0.0334 0.0352 0.03	123 0.0235	0.026	0.0354	0.0348	0.0382	0 0595	0 0439	
7 0.0508 0.0265 0.0507 0.0342 0.0981 0.0925 7 0.0887 0.0679 0.0618 0.041 0.1421 0.1382 8 0.0987 0.0679 0.0618 0.041 0.1421 0.1382 8 0.036 0.041 0.0421 0.1382 8 0.036 0.0321 0.0351 0.0351 0.0351 0.0425 8 0.039 0.0321 0.0321 0.0351 0.0351 0.0628 8 0.035 0.0321 0.0324 0.035 0.0621 8 0.036 0.037 0.031 0.039 8 0.036 0.037 0.031 0.039 8 0.039 0.031 0.028 0.0621 8 0.036 0.048 0.0621 8 0.039 0.037 0.031 0.039 8 0.031 0.0305 0.048 8 0.035 0.031 0.0305 0.044 8 0.036 0.048 0.0651 8 0.0485 0.0289 0.037 0.0359 0.0414 0.0605 8 0.0414 0.0605 8 0.0446 0.0605 8 0.0446 0.0605 8 0.0444 0.0605 8 0.0444 0.0605 8 0.0444 0.0605 8 0.0444 0.0605 8 0.0444 0.0605 8 0.0444 0.0605 8 0.0444 0.0605 8 0.0444 0.0605	124 0.0168	0.0379	0.0157	0.0278	0.0288	0 037	0 0287	
0.0887 0.0679 0.0518 0.0411 0.1421 0.1382 0.051 0.041 0.026 0.039 0.053 0.0727 0.0365 0.0321 0.0351 0.0351 0.0356 0.0425 0.049 0.039 0.0321 0.0324 0.0356 0.0276 0.0287 0.039 0.0313 0.059 0.0621 0.0361 0.0361 0.0651 0.0362 0.0377 0.039 0.0334 0.0363 0.0448 0.0651 0.0364 0.0334 0.0359 0.0448 0.0651 0.0369 0.0651 0.0369 0.048 0.0651 0.0398 0.0414 0.0665 0.0334 0.0334 0.0651 0.0366 0.0414 0.0665 0.0348 0.0414 0.0665 0.0348 0.0414 0.0665 0.0349 0.0414 0.0667	125 -0.0167	0.0508	0.0285	0.0507	0.0342	0 0981	0.0925	
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0.0111 0.0365 0.0423 0.0294 0.0351 0.0425 0.049 0.0276 0.0286 0.0287 0.001 0.0286 0.0276 0.0287 0.001 0.029 0.0321 0.026 0.0276 0.0287 0.0149 0.0352 0.0204 0.029 0.0651 0.023 0.0361 0.0298 0.0377 0.048 0.0651 0.028 0.0377 0.0369 0.0334 0.0486 0.0298 0.0651 0.0486 0.0334 0.0334 0.028 0.0359 0.0486 0.0334 0.0651 0.0486 0.0334 0.0651 0.0414 0.0651 0.0414 0.0651 0.0414 0.0651 0.0414 0.0651 0.0414 0.0651	127 -0.0072	0.051	0.041	0.026	0 0319	0 0623	0.0727	
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0.0149 0.0352 0.0204 0.0072 0.021 0.048 0.0651 0.023 0.0361 0.0352 0.0334 0.0087 0.0485 0.0396 0.0334 0.0087 0.0485 0.0414 0.0605 0.0087 0.0486 0.0414 0.0605 0.0486 0.0414 0.0605 0.0486 0.0414 0.0605 0.0487 0.0414 0.0605 0.0414 0.0605 0.0414 0.0605 0.0414 0.0605	130 0.001	0.0296	0.0417	0.024	0.0313	0.059	0.0621	
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=AVERAGE(N12:N133) =AVERAGE(U12:U133)=AVERAGE(P12:P133) =AVERAGE(U12:U133)=AVERAGE(N12:U133) =AVERAGE(N12:U133) =AVERAGE(N12:U	134							
► ▶ \ rawdata \\ 1st 2 fund filters \(\text{NF selection #1 \(\text{MF selection #2 \(\text{MF selection #3 \(\text{Tracking TR \(\text{R} \) Possible method to AC selection \(135 =AVERAGE(N1Z:N1	33) =AVERAGE(U12	:0133)=AVERAGE(P12.	P133) =AVERAGE(G12:G1	33)=AVERAGE(R12	:K133) =AVERAGE(S12	S133) =AVERAGE([12:113	- -
Name Selection New Selec	136							
▶ \ rawdata \1st 2 fund filters \ MF selection #1 \ MF selection #2 \ MF selection #3 \ Tracking TR \ Possible method to AC selection 4	138							>
	_	: 2 fund filters χ MF sele	sction #1 / MF selection #2	X MF selection #3 X Tracking	TR X Possible method	1 to AC selection / ◀		L
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Fig. 6.6

-[8]X - L M N O	WT:Wilm I Wp Stewa WM:Growt Wilshire Tç White Oak WellsFargı Vanguard I Vanguard I V LCGE LCGE LCGE LCGE LCGE LCGE LCGE LCGE	2.81% 196% 2.05% 2.80% 2.53% 2.40% 3.59% 2.50% 3.81% 3.80% 2.50% 3.81% 3.80% 2.15% 2.95% 2.95% 2.95% 3.70% 2.57% 2.38% 3.11% 3.61% 3.61% 3.61% 3.61% 3.61% 3.61% 3.61% 3.61% 3.61% 3.65% 3.70% 2.90% 7.52% 7.24% 2.95% 3.77% 2.90% 7.65% 4.90% 2.11% 3.24% 0.12% 2.05% 0.91% 0.37% 0.93% 3.75% 1.99% 2.03% 3.93% 3.59% 0.27% 3.41% 2.64% 4.03% 3.79% 0.27% 3.41% 2.64% 4.03% 3.07% 0.90% 0.27% 3.65% 4.10% 1.84% 1.87% 4.39% 4.48% 3.18% 2.93% 3.60% 1.54% 4.48% 3.18% 2.93% 3.60% 1.70 A. selection /
® ¬ ~	WM:Growt Wilshir LCGE LCGE Large-Cap Large-(1 11% 3.12% 2.04% 3.44% 3.74% 3.79% 6.74% 0.73% 4.46% 4.86% 4.86% 1.99% 1.99%
♣ ♣ ♣ 1 10	WT:Wilm I Wp Stewa V LCGE LCGE Large-Cap Large-Cap I	0.40% 2.99% 3.88% 2.43% 2.22% 2.16% 1.92% 2.51% 0.61% 3.11% 6.10% 3.53% 7.18% 1.68% 1.28% -1.84% 2.69% 3.65% 4.65% MF selection #3 & Tracking TR & M. 2.99% 3.06% 4.65% MF selection #3 & Tracking TR & M. 2.90% 3.06% 4.65% MF selection #3 & Tracking TR & M. 2.90% 3.06% 4.65% MF selection #3 & Tracking TR & M. 2.90% 3.06% 4.65% MF selection #3 & Tracking TR & M. 2.90% 3.06% 4.65% MF selection #3 & Tracking TR & M. 2.90% 3.06% 4.65% MF selection #3 & Tracking TR & M. 2.90% 3.06% 4.65% MF selection #3 & Tracking TR & M. 2.90% 3.06% 4.65% MF selection #3 & Tracking TR & M. 2.90% 3.06% 4.65% MF selection #3 & Tracking TR & M. 2.90% 3.06% 4.65% MF selection #3 & Tracking TR & M. 2.90% 3.06% 4.65% MF selection #3 & Tracking TR & M. 2.90% 3.06% 4.65% MF selection #3 & Tracking TR & M. 2.90% 3.06% 4.65% MF selection #3 & Tracking TR & M. 2.90% 3.06% 4.65% MF selection #3 & Tracking TR & M. 2.90% 3.06% 4.65% MF selection #3 & Tracking TR & M. 2.90% 3.06% 4.65% MF selection #3 & Track
Accounting Window Help A B B E E Heet is for calculating total retu D E F returns net of the risk-free rate	LCGE Large-Cap Growth Funds minus risk-free rate	0.47% 0.70% 0.23% 0.40% 2.99% 0.48% 2.94% 2.43% 2.43% 0.48% 2.94% 2.22% 2.16% 0.48% 2.34% 2.64% 0.51% 2.15% 0.48% 5.14% 4.67% 0.51% 3.13% 0.46% 5.22% 4.76% 0.61% 3.53% 0.46% 5.22% 4.76% 0.18% 1.28% 1.28% 0.46% 5.22% 4.76% 0.18% 1.28% 1.28% 0.44% 0.50% 0.05% 2.62% 4.12% 0.44% 3.06% 2.62% -0.18% -0.18% 0.44% 0.26% -0.18% -0.18% -0.19% 0.41% 0.26% -0.15% 2.60% 0.36% 0.41% 0.26% -0.15% 3.06% 4.56% 0.69% 0.41% 0.26% -0.15% 3.06% 4.56% 0.69% 0.41% 0.26% -0.15% 3.06% 4.56% 0.69% 0.41% 0.26% -0.15% 3.06% 4.56% 0.56% 0.41% 0.26% -0.15% 3.06% 4.56% 0.56% 0.41% 0.26% -0.15%
K es Es Esta C D C calculating total ret	LCGE LCGE Large-Cap Large-Cai minus Average risk-free Equal Wtd rate	0.70% 3.63% 2.34% 2.31% 3.12% 6.12% 0.50% 0.65% 0.085% 0.26% 2.33% 2.33% 2.33% 2.33%
Signa Insert For Signature	1 month T-Bill risk-free rate	
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Fig. 7.1

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	Ħ	k Wellsha LCGE minage-Cg misk-free rate 2.158 6 2.249 6 6.77,6 6 1.59 6 1.59 6 1.59 6 2.21,6 6 3.53	
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Fig. 7.2

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	<u>8</u>	:Grawth,C	
	뜨	ABN AMRO LCGE Large-Cap [©] minus risk-free rate	0.40% 4.37% 1.91% 2.04% 3.12% 3.12% 0.27% 0.27% 0.36% 0.36% 0.060% 0.05%
	Q	Accessor. Af LCGE LC Large-Cap La minus m risk-free ris rate ra	1.83% 3.13% 2.50% 3.29% 3.29% 2.58% -1.30% 1.92% 0.92% 0.92% 1.45% 0.98%
	<u>a</u>	Advantus I Acco LCGE LCGE Large-Cap Larg minus minu risk-free risk- rate rate	1 02% 3 04% 1 56% 0 24% 1 63% 4 01% 6 05% 1 35% 1 35% 1 22% 2 24% 2 53% lettion
	<u>o</u>	Aetna: Grov Advantu LCGE LCGE Large-Cap Large-C minus minus risk-free risk-free rate rate	2.23% -0.37% 102% 2.41% 2.48% 3.04% 2.73% 1.92% 0.24% 1.79% 2.66% 163% 2.29% 5.43% 4.01% 2.41% 5.75% 6.059 4.21% 0.43% 1.35% 1.29% 1.71% -0.61% 1.29% 1.31% 1.35% 1.34% 0.61% -1.97% 3.54% 0.65% 1.55% 0.69% 1.67% 1.23% 1.01% 0.05% 0.032% 1.47% 3.43% 1.22% 1.01% 0.05% 0.032% 2.92% 1.96% 2.53% Possible method to AC selectron
€ š	_ <u></u>	ā e	2.23% 2.43% 2.73% 1.73% 2.24% 4.21% 4.21% 1.24% 3.64% 1.31% 1.01% 1.47% 2.92%
100% •	_ <u>⊠</u>	Eq.Cr AlM Eq E LCGE e-Cap Large-Cc is minus free risk-free	
%001 %		Eq.W AIM Eq.(E. LCGE P.Cap Large-Cs s minus ree risk-free rate	3.54% -1.19% 0.64% 6.39% 4.62% 3.17% 5.70% 2.12% 2.46% 3.64% 13.74% 5.76% 3.78% 1.01% 0.14% 0.61% 2.37% 3.39% 4.18% 2.37% 2.27% 0.05% 1.90% 0.93% 1.35% 2.10% 2.00% 3.14% 1.46% 1.84% A MF selection #3 Å Tracking TR Å
\$ \$ 4 (ii		Ret (AIM Eq.) LCGE Cap Large-Cs minus ee risk-free rate	-3 64% -3 64% -3 73% -5 73% -1 37% -1 11% -1 11% -2 37% -3 73% -3 73% -3 73% -3 73% -3 74% -3 74%
48	天	Ret:(Alger Re LCGE Cap Large-Ca minus se risk-free rate	
Accounting Window Help	3	ica, Alger Re LCGE Sap Large-Ca minus e risk-free rate	3% 1.21% -2.14% 2% 3.31% 4.60% 2.30% 2.30% 4.59% 6% 2.41% 2.95% 6% 0.28% 1.18% 6% 0.28% 1.51% 1.2% 6% 1.51% 1.12% 6% 1.50% 0.39% 1.6% 0.36% 1.51% 1.2% 6% 1.50% 0.99% 1.50% 1.50% 2.52% 0.94% 2.52% 2.52% 0.95% 2.52% 2.
Accounting	=	nt8 Allg/Chic LCGE ap Large-Ca minus risk-free rate	
	I	Allg/Mor LCGE p Large-Co minus risk-free rate	
Format Iooks	n D	Amer Cent Alliance Pr.Allg/Mor LCGE LCGE LCGE LCGE Large-Cap Large-Cap Large-Ca minus minus minus minus risk-free risk-free risk-free rate rate rate	3% 2.26% 14% 2.63% 334% 3.62% 334% 3.62% 33% 5.20% 33% 5.20% 14% 0.50% 14% 0.31% 6% 2.42% 6% 3.03% 1.75% 1.76% 1.76% 1.76% 1.76% 1.56% 1.76% 1.56% 1.76%
Yiew Insert) L	Amer Cent LCGE Large-Cap minus risk-free rate	2.2.2.2.2.4.4.2.2.2.2.2.2.2.2.2.2.2.2.2
カロ は	IEI IEI	Amer Cent. LCGE Large-Cap minus risk-free rate	₩ W Y Y \ - Q \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
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Fig. 7.3

997 D E 4.99% -4.09% 1.78% 0.68% 1.78% 1.15% 3.07% 5.83% -1.11% -1.11% 5.93% 6.63% 10.43% 6.50% 6.50% 6.50% 6.50% 6.50% 6.50% 6.50% 6.50% 6.50% 6.50% 6.50% 6.50% 6.63% 6.6	₩ 2 4 4 4 5 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	H H G G G G G G G G G G G G G G G G G G		7. 19. 19. 19. 19. 19. 19. 19. 19. 19. 19	105% 6 3.05% 6 7.92% 6 1.05% 6 10.57% 6 0.38% 6 4.61% 6 7.55% 7.55% 7.55% 7.55% 8 1.49% 8 1.499%	M 6.97% 3.07% 1.72% 1.72% 2.58% 2.58% 9.11% 9.11% 9.40% 7.34%	N 3.60% 4.51% 4.51% 1.48% 7.82% 7.82% 1.53% 6.09% 7.02%	5.08% 5.41% 5.41% 6.91% 6.91% 7.13% 13.04%
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0.38% 7.29% 6						8 83%	7.37%	7.28%
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09/30/1999 0.40% -0.85% -1						-3.79%	-1.98%	-1.69%
10/31/1999 0.39% 7.09% 6					•	8.63%	8.65%	8.06.9
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Fig. 7.4

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	-4 50%	-4.42%	-3.64%	-5 13%	-4.03%	-3.36%	-2.91%		-5.92%	-3.59%	-3.19%	-5 U/%	-43.4%	-4.18%	-2.32%	
22	1.85%	1.72%	3.68%	0.35%	5.38%	5.40%	2.07%		0.47%	5.53%	-0.85%	27.%	0.51%	7.66%	4.1U%	
23	0.75%	0.27%	1.62%	-1.18%	3.96%	0.68%	0.82%		1.46%	1.56%	-1.50%	0 28%	-1.49%	1.29%	1.05%	
54	0.75%	0.65%	1.22%	1.67%	0 70%	3.57%	1.58%		-1 32%	3.30%	2.67%	2.66%	5.26%	2.20%	2.46%	
2 2	7.63%	6.21%	6.87%	9.11%	7 41%	7.25%	8.67%		8.93%	8.47%	8.94%	8 19%	10.15%	7.51%	7.40%	
56	4.17%	4.64%	4.60%	5.96%	4.51%	4.50%	4.50%		272%	4.64%	4.38%	3 26%	-0.05%	2.15%	3.68%	
25	1 74%	-0.07%	1.77%	3.55%	-0.08%	-0 16%	0.24%		0 50%	-2.89%	3 34%	-0 04%	4.19%	2.19%	1.96%	
	-2.06%	-2.70%	-2.31%	-2.86%	-2.20%	-1.16%	-2.32%		-5 44%	-3.00%	-3.47%	-2 83%	-5 47%	-3.64%	-1.95%	
	5.18%	4.96%	4.65%	5.06%	8.24%	7 93%	5.96%		4 60%	7.14%	9.00%	6.79%	7.14%	8.69%	5.98%	
	-0.51%	0.14%	-0.77%	-0.90%		-0.12%	-1.26%		-2.71%	-0.78%	-0.85%	-1.02%	-0.15%	-0.21%	-1.01%	
'	-16.86%	-16 36%	-15,15%	-17.31%		-13.67%	-16.67%		-17.26%	-15.11%	-17.49%	-13.96%	-23 91%	-17.10%	-14.53%	٠,
	6 11%	5.19%	5.72%	9.85%		7.77%	4.56%		7 42%	8.55%	11.66%	8 2 2 %	5.11%	8.39%	5.68%	
	5.35%	8.38%	8.10%	3.49%		7.27%	6.83%		7.58%	3.28%	2.89%	7.66%	14.60%	6.95%	6.63%	
	7.41%	6.53%	6.39%	5 54%	6.62%	7.31%	7.51%		4.80%	6.89%	6.41%	6.84%	9.44%	9.19%	6.91%	
	13.15%	9.20%	8.21%	12.90%	8.35%	10.89%	10.13%		10.04%	6.39%	18.02%	7.84%	8.57%	11.61%	8.30%	
	8.00.9	5.30%	3.86%	6.23%	3.21%	7.34%	1.70%		3 54%	5.44%	12.89%	5.93%	14.23%	7.82%	5.05%	
	-4 90%	-3.76%	-3.55%	-4.66%	-5.71%	-4.19%	-3.45%		-4 44%	-1 32%	-3.67%	-4 05%	-6.17%	-4.56%	-5 29%	
	8.00.9	6.78%	4.93%	5.59%	5.46%	6.09%	2.62%		3.63%	0.58%	11.78%	4.74%	5.16%	5.84%	3.22%	
	-0.30%	1.43%	1.10%	0.33%	-0.19%	-1.21%	1.39%		-0.73%	-1.63%	4.73%	-0.42%	-2.08%	0.08%	-1.16%	
	-1.70%	-2.69%	-2.95%	-2.43%	-3.70%	-4.14%	-3.09%		-311%	-6.46%	-5.97%	-3.58%	-2.86%	-3.86%	-3.70%	
71	7.00%	7.26%	6.29%	8.78%	8.22%	6.35%	7.09%		8.36%	5.57%	7.63%	6.63%	10.42%	8.45%	6.99%	
22	-2.70%	-3.75%	-2.77%	-1.08%	-3.30%	-3.55%	-5.43%		-387%	-5.82%	-4 31%	-357%	4.02%	-5.24%	-4.00%	
23	-0 63%	-0.06%	-0.79%	-0.27%	1.19%	-0.10%	-2.01%		0.22%	-0.18%	2.39%	2.16%	2.06%	-0.13%	0.40%	
74	0.78%	-1.28%	-0.98%	-2.23%	-1.57%	-1.81%	-2.66%		-1 60%	-1.24%	4.49%	-2.82%	-1.20%	-4.19%	-2.38%	
75	4.50%	5.93%	7.02%	4.74%	5.28%	7.29%	8.31%		7.83%	6.69%	7.02%	7.61%	10.12%	8.24%	8.26%	
76	6.85%	4.20%	3.23%	4.26%	4.35%	3.24%	2.12%		8.96%	-1.01%	10.53%	2.59%	4.90%	3.27%	2.87%	
11	10.65%	11.50%	8.63%	12.62%	10.26%	9.29%	6.65%		21.27%	4.25%	19.32%	11.20%	8.51%	10.58%	6.66%	
28	-3 62%	-3.68%	-3 30%	-4.45%	-5.10%	-6.81%	-5.79%		-535%	-5.07%	-0.27%	-7.27%	0.56%	-2.98%	-6.00%	
73	15.33%	3.37%	1.57%	7.42%	7.81%	2.69%	4.63%			-5.41%	11.83%	3.03%	8.70%	1.44%	1.70%	T
8	2.27%	8.75%	8.85%	7.41%	6.01%	8.01%	8.96%		5.34%	14.17%	1.29%	7.75%	8.52%	11.34%	8 27%	
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Fig. 7.5

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			1	<u>o</u>	4.71%	-3.7.%	4.99%	0.25%	3.14%	6.83%	4 07%	-0.58%	-1.58%	7.51%	-0.54%	-14.08%	7.36%	6.88%	6.97%	10.52%	6.98%	-4.55%	5.72%	-1.57%	-4.50%	5.97%	-3.93%	-0.48%	-2.21%	6.90%	2.83%	8.87%	-7.25%	2.25%	7.55%			<u>-</u>	
				<u>a.</u>	387%	-4 44%	4 97%	3 53%	0 27%	6.99%	4 08%	-0 20%	-2 62%	7.82%	-0 62%	-15 51%	8 85%	4 61%	6.28%	7 98%	2.85%	-6.07%	5.09%	-0 55%	-4 06%	7 84%	-3 68%	0.81%	-1.97%	4.89%	3.94%	9.84%	-5 54%	7.37%	5 55%			selection /	•
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		· &		Z	5.47%	-4.05%	3.27%	1.19%	0.79%	6.45%	4.17%	1.35%	-2.73%	4.23%	-1.19%	-15.56%	5.31%	7.71%	6.05%	7.84%	3.50%	-3.91%	4.56%	0.74%	-3.31%	5.91%	-3.15%	-1.17%	-1.38%	6.63%	2.82%	8.21%	-3.74%	1.13%	8.39%			Possible m	
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					5 73%	-4.91%	1.44%	0 32%	0.32%	7 21%	3.74%	1.32%	-2.48%	4.76%	-0.93%	-17.27%	5.70%	4.96%	7.07%	12.78%	5.64%	-5.26%	5.63%	%99 O•	-2.06%	6 62%	-3.08%	-1.01%	0.38%	4.11%	6.44%	10.23%	-4.06%	14.89%	1.81%			tion #3 / 1	<
		†¥ †₹		天	5.39%	-6.78%	1.03%	-1.65%	0.60%	6.61%	4.80%	2.93%	-1.82%	10.23%	1.01%	-18.13%	14.35%	3.67%	9.57%	15.94%	12.10%	-2.14%	13.51%	3.59%	-5.36%	7.68%	-3.83%	3.06%	1.26%	5.43%	11.82%	16.20%	-3.37%	16.58%	1.20%			/ MF selec	<
	ow <u>H</u> elp			=	4.95%	-5 60%	1.07%	-0 20%	0 85%	7.63%	5.60%	0.76%	-1.59%	8.74%	2.55%	-17.08%	8 16%	4.62%	7.26%	12.10%	6.92%	-3.22%	84.8	-0.24%	-4 90%	9.66%	-4.04%	-2.01%	-0.95%	5.53%	5.71%	8.20%	-3.17%	4.44%	8.11%			F selection #2	
	Accounting Window Help	** • •		_	2.34%	-1.86%	3.04%	1.64%	1.01%	8.67%	4.26%	-0.0e%	-3.43%	6.33%	-1.99%	-16.98%	10.38%	8.08%	3.95%	8.36%	3.88%	-2.30%	4.02%			6.16%		-0.57%	•			7.64%		-2.46%				ion #1 / M	<
ample)		\$	·\$850	エ	4.63%	-3.65%	1.49%	1 12%	1.81%	8.25%	1.39%	2.77%	-2.63%	5.71%	-2.29%	-15.71%	2.75%	9.30%	6.61%	7.84%	5.47%	-3.83%	5.21%	-1 33%	-2.19%	4.22%	-2.29%	1.88%	-5.80%	7.00%	4.75%	3.81%	-5.95%	-5.03%	7.29%			/ MF color!	
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X Microsoft Excel - Patent #4 (RCS example)	w Insert F		F	L	6.49%	-5.06%	0.77%	-0.09%	1.99%	5.80%	5.43%	1.21%	-2.80%	7.56%	-1.10%	-14.41%	7.34%	2.43%	5.94%	806.6	6.05%	-5.52%	5.87%	-1.01%	-3.16%	6.63%	-2.94%	1.29%	-1.14%	6.40%	5.44%		·		ω			1 - 1 - 2 - 1 - 2 - 2 - 2 - 2 - 3 - 3 - 3 - 3 - 3 - 3	vada A 13c
rosoft Exce	File Edit <u>Vi</u> ew		IE50	E E	5.16%	-6.66%	1.65%	0.85%	1.33%	7.03%	5.60%	1.03%	-2.13%	6.84%	0.23%	-18 67%	6.91%	3.63%	5.84%	11 02%	6.70%	-3.10%	5.55%	%B8 U-	.2.90%	4.77%	.3.68%	-0.77%	-1.53%	8.53%	4.70%	14.97%	-6.75%	3 73%	9.39%			4	•
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Fig. 7.6

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US/31/1996 U.:004/00333333333333333333333333333333333		0.00418333333333	33:0.02389918032786 23:0.002 <i>8</i>	89 =C31-\$B31 -C37 \$B37				0.0456
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Fig. 7.7

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	=124-\$B24	=J24-\$B24	=K24-\$B24	=L24-\$B24	=M24-\$B24	=N24-\$B24
=H25-\$B25	=(25-\$B25	=J25-\$B25	=K25-\$B25	=L25-\$B25	=M25-\$B25	=N25-\$B25
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=H27-\$B27	=127-\$B27	=J27-\$B27	=K27-\$B27	=1.27-\$827	=M27-\$B27	=N27-\$B27
=H28-\$B28	=128-\$B28	=J28-\$B28	=K28-\$B28	= 28-\$B28	=M28-\$B28	=N28-\$B28
=H29-\$B29	=I29-\$B29	=J29-\$B29	=K29-\$B29	=L29-\$B29	=M29-\$B29	=N29-\$B29
	=130-\$B30	=J30-\$B30	=K30-\$B30	=L30-\$B30	=M30-\$B30	=N30-\$B30
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	=134-\$B34	=J34-\$B34	=K34-\$B34	=L34-\$B34	=M34-\$B34	=N34-\$B34

Fig. 7.8

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Fig. 8.1

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Fig. 8.2

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Fig. 8.3

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Fig. 8.4

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Fig. 9.1

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Fig. 9.2

Fig. 9.3

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Fig. 9.4

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116 AIM Eq: Wingarten, Rtl A	119	115 Alger Ret: Cap Apprec	-0.81%	•	-0.54%	114	-0.95%	119	-1.06%	12	-0.81%	119	-0.81%	119	-0.47%
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Fig. 9.5

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DECLARATION — Utility or Design Patent Application

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